THE CHEMIST AND DRUGGIST

**A Weekly Journal of the Chemical and Drug Trades** and of **British Pharmacists throughout the Empire.**
ESTABLISHED 1859.

The CHEMIST AND DRUGGIST is the leading journal addressing the chemical and drug trades of the British Empire. It is adopted as an official journal by nineteen Chemists' Societies in Australia, Ireland, New Zealand, South Africa and the West Indies, and its paid-in-advance circulation in Great Britain and all Countries having business relations with the British Empire is intrinsically and numerically unique.

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# Summary of this Issue.

The more notable items only are dealt with.

### Articles and Communications.

Portraits and biographical notes of the chief officers of the Chemists' Dental Society are given on p. 55.

We print the first of a series of articles on pushing specialities. It gives ideas in regard to a tooth-powder (p. 51).

Mr. John C. Umney has now completed his work on a commercial standard for Ceylon citronella oil, and we quote his assay process on p. 53.

Another report of the census of production in the United Kingdom during 1907 has been issued. It generalises the values of produce in manufacturing industries. See p. 57.

Mr. E. J. Parry, in his communication on iodine values of fixed oils, shows how the German Pharmacopœia method of determination has led to differences in results, compared with British methods (p. 53).

Mr. H. C. T. Gardner points out the inaccuracies of the present British Pharmacopœia monograph on Caoutchouc, and shows how it should be modified. Incidentally the analysis of indiarubber is described (p. 52).

"Xrayser II." considers that the British Pharmacopœia should be published more frequently; he also comments upon the history of hiera picra, the pecularities of the locum tenens, and the nonsense talked about dispensers under the National Insurance Bill (p. 47).

Sir William Ramsay, in his presidential address to the British Association on Wednesday, condemned British methods of education, expressed his views on the elements, and discussed the sources of energy, condemning our prodigal waste of coal. See the article which begins on p. 48.

### News of the Week.

Stick fly-papers are in exceptionally good demand at present. See notes on pp. 35 and 37.

A French view of German pharmacy is communicated by our Paris correspondent (p. 38).

The Orange Free State is getting over its Medical and Pharmacy Council difficulty (p. 40).

Among the deaths reported is that of Mr. Adpar Jones, a director of Idris & Co., Ltd. (p. 44).

British wines are the subject of a report by the Paddington public analyst. We quote from it on p. 35.

Our German *confrères*' troubles have been well discussed at the annual meeting of the Apotheker Verein, reported on p. 40.

The Lancaster coroner is investigating a case of arsenic-poisoning which is said to involve four deaths, and alleged criminal use of arsenic (p. 36).

The quincentenary of the St. Andrews University is to be celebrated this month, and many distinguished scientists are to receive the LL.D. degree (p. 37).

A new Pharmacy and Poisons Ordinance for British Guiana is proposed, and we give the text of it, showing that it bears on the labelling and sale of proprietary preparations (p. 42).

The fifty-ninth annual meeting of the American Pharmaceutical Association was held at Boston, Mass. Professor Remington reported on the revision of the United States Pharmacopœia (p. 41).

An interesting case under the Sale of Food and Drugs Acts regarding the composition of camphorated oil is reported on p. 43. The offence alleged was use of 6 parts of synthetic camphor with 15 parts of natural camphor. The defendant chemist had never bought synthetic camphor.

### Trade and Market Matters.

The production of olive oil in France is the subject of an article on p. 57. This includes valuable facts and figures.

Some interesting features in regard to the opium market from an American point of view are discussed in an editorial on p. 50.

A number of interesting price-changes have occurred this week, including an advance in ipecacuanha, foreign citric acid, French lavender oil, milk-sugar, strychnine, soda nitrate, carnauba wax, and zinc oxide; on the firmer side are lead salts, tragacanth, orris, and cascara sagrada. Quicksilver (seconds), orange oil, and lime-juice are cheaper (p. 58).

B

# CORNER FOR STUDENTS.

Conducted by Leonard Dobbin, Ph.D.

## Oxidation and Reduction in Chemical Analysis.—IX.

OXIDISING AGENTS.—5. **Ammonium persulphate.**—In an analytical note in the *C. & D.* for April 29, index folio 625, Mr. R. C. Cowley, Brisbane, recommended ammonium persulphate as a very efficient substitute for sodium peroxide in examining the mixed hydroxide precipitate of the iron-group (see article VIII., 4), and, moreover, as a reagent easily and cheaply obtainable in Australasia, whereas sodium peroxide is not always available since it is not manufactured there and shipping companies will not carry it. The necessary procedure is sufficiently described in the note, and the results are quite satisfactory. From the point of view of these articles, the most important difference in the oxidation by ammonium persulphate and by sodium peroxide is that the former takes place in acid and the latter in alkaline solutions. Some years ago we examined the use of ammonium persulphate as an oxidiser for treating the combined precipitate of the iron- and zinc-groups (the ammonium hydrosulphide precipitate) with a view to elaborating an improved separation in the presence of phosphates, but met with difficulties—chiefly connected with the fact of the oxidation having to be carried out in acid solution—which proved it to be unsuitable for this purpose and necessitated our falling back upon sodium peroxide for a successful method. Ammonium persulphate in presence of a minute quantity of silver nitrate furnishes a delicate test for manganese in solutions free from halogen acid radicals. A single drop of solution of silver nitrate is added to a few cubic centimeters of the solution to be tested, then ammonium persulphate, and the mixture is heated. In the presence of manganese the purple colour of the permanganic-acid radical appears as the result of oxidation. This test has the advantage over Crum's test with nitric acid and lead peroxide that there is no turbidity in the liquid in which the purple colour is to be looked for. The test is so delicate that the presence of traces of manganese in many ordinary laboratory reagents may be detected by its aid.

6. **Potassium nitrate.**—Employed in admixture with sodium carbonate, potassium nitrate is a useful oxidising agent in the fused state at a moderately high temperature. It finds application thus in the sodium carbonate bead tests, and in one of the modes of converting chromic hydroxide into a chromate in the examination of a precipitate of iron-group hydroxides. The nitrate is converted, partly at least, into nitrite. Black insoluble residues left after treatment of unknown substances with *aqua regia*, are commonly heated with potassium nitrate with a view to observing deflagration and the formation of a carbonate, as a means of proving the presence of carbon.

7. **Potassium chlorate.**—This salt is not largely employed in qualitative analysis, but is used in conjunction with hydrochloric acid to form an oxidising mixture which rapidly attacks the more refractory sulphides, such as mercuric and arsenious sulphides, and converts ferrous into ferric salts. It is a convenient salt to use for these purposes, since the volatile products of its decomposition—chlorine and chlorine peroxide—are easily got rid of by boiling down the liquid, while the non-volatile potassium chloride is not usually of any consequence in the analysis.

8. **Potassium permanganate.** — The oxidising effect of potassium permanganate in presence of dilute sulphuric acid has already been illustrated in the first article of this series. A dilute aqueous solution of the salt (about 2 per cent.) is in common use as a test, in presence of dilute sulphuric acid, for reducing substances such as oxalic acid, ferrous salts, sulphites, etc., the rapid discharge of the colour of the solution serving as a sharp indication of its having become reduced. Permanganates are capable of being reduced by some reducing agents simply in aqueous or even in alkaline solutions, but such reduction is generally accompanied by the precipitation of manganese hydroxy-peroxide, and is seldom of any consequence in the routine course of analysis.

9. **Potassium bichromate.**—Strips of filter-paper coloured (not too intensely) by being dipped in a solution of potassium bichromate are employed in testing for sulphur dioxide. This gas destroys the colour of the bichromate, and the test-paper becomes nearly colourless.

10. **Halogen and water.**—Chlorine water, bromine water, and iodine in solution of potassium iodide all behave as oxidising agents, the halogens uniting with the hydrogen of water to form halogen acids, while the oxygen is taken up by the oxidisable substance :

$$X_2 + H_2O = 2HX + [O].$$

One of the commonest applications of these reagents is in testing for sulphites in solutions from which any sulphuric-acid radical which may have been present originally has been removed. By the oxidising action of the reagent employed, the sulphurous-acid radical is converted into the sulphuric-acid radical, and from the detection of the latter the original presence of the former is inferred. It is of the first importance for this test that the reagents themselves should be free from any traces of sulphuric acid—an impurity which all are liable to contain.

11. **Hypochlorites** and **hypobromites.**—Solutions of hypochlorites and of hypobromites yield oxidising mixtures when treated with mineral acids (compare article VI., 1, *c*), but for analytical purposes they are almost invariably applied to alkaline liquids. By giving up their oxygen to oxidisable substances they are converted into chlorides and bromides respectively :

$$NaClO = NaCl + [O]; \quad NaBrO = NaBr + [O].$$

The oxidising effect of a solution of sodium hypobromite is commonly obtained by simply adding bromine to a solution containing sodium hydroxide :

$$2NaOH + Br_2 = NaBrO + NaBr + H_2O.$$

For some purposes the use of sodium hypobromite has been superseded by sodium peroxide.

12. **Arsenic acid.** — The behaviour of arsenic acid and of solutions of arsenates to which hydrochloric acid has been added, towards hydrogen sulphide, both alone and in conjunction with sodium thiosulphate, and also their behaviour towards sulphurous acid, have already been referred to in article VI., 1, *b*, and article VII., 3 and 6.

# POISONING FATALITIES.

Seven deaths due to poisoning have been reported since our last issue. In three cases the poison was taken accidentally.

*Ammonia.*—At Newbury, Lucy Marryat, the widow of an Army captain, died through accidentally taking a quantity of Scrubb's ammonia in mistake for magnesia.

*Morphine.*—At an inquiry held at Kensington into the death of Francis Saunders Morris (37), civil engineer, Queen's Gate, London, W., it was stated that deceased had been a drug-taker for many years. He had made a hobby of studying drugs, and had taken almost every drug imaginable. He took morphia for insomnia, and had also taken other drugs. A witness stated that he found deceased looking very ill, and he told the witness that he thought he had taken too much morphia the night before. He had since taken strychnine, which he thought was the best antidote. A doctor was called in and told the circumstances and remained in attendance until death, which took place the next day. Dr. Overy said death was due to coma consequent upon morphia-poisoning. The jury found a verdict of "Death by misadventure."

*Oxalic Acid* was used for self-destruction by Thos. Henry Poole (60), greengrocer, Borough Road, London, S.E.

*Potassium Cyanide.*—An open verdict was returned at the inquest on John Clark (59), watchmaker, Newcastle-on-Tyne, who died from the effects of cyanide of potassium poisoning.

*Spirit of Salt* was taken with suicidal intent by Jane Stevens (61), Northfleet, last May, and she died recently in Maidstone Prison Hospital from malnutrition resulting from the corrosive effects of the poison.—The same acid caused the accidental death, at Plumstead, of Ernest Hammond (36), who drank a quantity of spirit of salt in mistake for his medicine.

*Strychnine.*—At Tottenham, Rose Humphrey (18), domestic servant, committed suicide by taking strychnine. Deceased was in the service of Dr. Howard, Harringay, and at the inquest the doctor deposed that he kept all poisons securely locked in his coach-house and kept the key always in his pocket. The Coroner stated that an examination of the stomach-contents gave evidence of the presence of particles of blue colouring-matter such as is used in the preparation of vermin-killers.

# ENGLISH AND WELSH NEWS.

**When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.**

### Brevities.

An application for a poison-licence has been made to the East Sussex County Council by Mr. H. Cornwell, of High Street, Uckfield.

The officers of the Apothecaries' Company for the ensuing year have been elected as follows: *Master*, Mr. Arthur Long; *Wardens*, Mr. W. Bramley Taylor and Mr. Martindale C. Ward.

Mr. H. C. Bedding, of the "Chemist Assistants' Reform Union," writes to the "Daily Chronicle" of August 30 *re* chemists and the Shops Bill. Are pharmacists threatened with yet another new organisation?

At Kettering Police Court on August 23, the usual order was made against Mr. J. F. Thursfield and Mr. J. H. Thursfield, pharmacists, Kettering, both of whom appeared as passive resisters, through refusing to pay for the educational portion of the poor rate.

The directors of the Co-operative Wholesale Society, in their report just issued, state that the sales for the half-year amounted to 13,113,448*l*., an increase of 263,797*l*. on the corresponding period of last year. The net profit in the trade department is 253,678*l*.

The Chepstow Guardians have decided to ask Dr. Corben to explain the difference in his account for expensive medicines as compared with that of the other medical officers. Dr. Drape's bill for the half-year was 5*l*. 8*s*.; Dr. Thomas's, for a quarter, 6*l*. 3*s*. 10*d*.; and Dr. Corben's for a quarter, 6*l*. 13*s*. 4*d*.

The National League for Physical Education and Improvement have issued a pamphlet regarding the danger of clothing children in flannelette. The League advocate an amendment of the Merchandise-marks Act making it penal to describe as uninflammable material which will not stand certain prescribed tests.

In Manchester, as elsewhere, there has been a very big demand for fly-catchers. Owing to the strike difficulty has been experienced in renewing supplies. At what is probably the largest firm of wholesale chemists in the North of England the demand from retailers has been at least three times as great as that of the same period in previous years.

The Development Commissioners have received the sanction of the Treasury for the allocation of funds, reaching ultimately the amount of 50,000*l*. per annum, to be distributed by the Board of Agriculture and Fisheries for the promotion of agricultural research and local investigations in England and Wales. Part of the money will be in the form of grants for investigations to universities and agricultural colleges.

The sea-water injection treatment for infantile cholera is being carried out daily at the Quinton Polyclinic, 57 Poland Street, London, W., the institution being on the plan of the Parisian clinics. [Information in regard to this treatment has been given in the *C. & D.* occasionally during the past two years. Messrs. Oppenheimer, Son & Co., Ltd., have for some time supplied the prepared water in 30-c.c., 50-c.c., and 100-c.c. asceptules, and 8-oz. bottles.—Editor *C. & D.*]

Some extraordinary acts of vandalism were perpetrated at Brockhurst, East Grinstead, the residence of Mr. F. J. Hanbury, during the night of August 24. Some malicious individuals, who apparently entered the grounds where a portion of the fence has been removed for the erection of a new cottage, first turned on a water-tap and wasted some thousands of gallons of water—a serious matter considering the prevailing drought. At the house itself many shrubs and creepers were damaged, and the instruments at the meteorological station, which Mr. Hanbury had recently established, were smashed. The marauders also visited the vineries and tore down many bunches of grapes. The perpetrators of the outrage have not been traced. The affair has aroused much indignation in the town, as the beautiful grounds and greenhouses are often thrown open to the public.

### Contracts.

Cranbrook Guardians.—Hooper & Co., for a water-bed at 4*l*. 17*s*. 6*d*.

Caistor Guardians.—The Lincoln Rubber Co., for water-beds at 5*s*. per lb.

### Fires.

Some packing material at the rear of the pharmacy of Mr. H. S. Pearmund, Ph.C., 48 High Street, Tunbridge Wells, caught fire near midnight on August 24, but the local fire-brigade subdued the flames before much damage had been done.

The roof of the Medical Hall, Tudor Square, Tenby, occupied by Mr. H. P. James, Ph.C., was found to be on fire late on August 22, but the flames were extinguished before any great damage was done to the building or its contents, both of which are insured.

### Sale of Food and Drugs Acts.

In Hackney during last year the following samples were analysed: Pepper 21, olive oil 12, mustard 15, arrowroot 6, camphorated oil 3, paregoric 3, vinegar 6. All were genuine.

The Bermondsey medical officer, Dr. R. K. Brown, in his annual report states that the following drug samples were analysed and all found to be genuine: Olive oil 5, cod-liver oil 4, glycerin 4, camphorated oil 3, eucalyptus oil 2, crushed linseed 1, oil of camphor 1, and tincture of iodine, 1.

The Paddington analyst (Mr. A. W. Stokes, F.I.C.) reports that during the past year forty-two drug samples were analysed and found to be genuine, but thirteen samples of British wines examined were adulterated in every case. In regard to the latter the analyst says:

"The results of analyses of the samples taken show that these wines fall into two categories—viz., (*a*) the non-alcoholic, in which preservatives replace the alcohol, and (*b*) the alcoholic. The preservative found in the non-alcoholic was salicylic acid in each case. The amount of the drug present varied from 'a trace' to 7 grains per pint. In the alcoholic group the proportion of alcohol present varied from 17·23 per cent. of proof-spirit, equivalent to 8·5-11·5 per cent. of absolute alcohol. An ordinary claret contains about 20 per cent. of proof-spirit. In the absence of any 'standard' composition of 'British wines,' it was not thought desirable to institute proceedings in any of the cases. The labels did not indicate the presence of preservatives, but the amount present could not be deemed injurious. The facts have been reported to the Local Government Board."

### A Threepenny Doctor.

The following notice is displayed on the windows of 174 High Street, Homerton, London, the premises of Dr. Jelley:

*Notice.*

This dispensary will be closed from Thursday morning at eleven till Friday evening at seven on account of my marriage. No one will be seen during those hours.

Dr. Jelley is known locally as the "threepenny doctor." He arrived at Homerton a few months ago, an unknown man; but it speedily became known that he was giving advice and medicine for threepence, and his premises were packed morning and night. He had to take larger premises and get a horse and carriage. He frequently sees more than three hundred patients in a day.

### Birmingham Notes.

The Birmingham Guardians are about to erect at the Dudley Road Infirmary a pathological and bacteriological laboratory and *x*-ray department.

Doris Alcock, daughter of Mr. F. H. Alcock, Ph.C., F.I.C., has been awarded a foundation scholarship at the King Edward High School for Girls.

Following in the wake of your excellent Educational Number, writes a correspondent, the local teaching institutions and schools are circularising local pharmacists, calling attention to the classes which are to begin shortly.

It may be well to remind local pharmacists that the City Analyst, who is also a pharmaceutical chemist, does not approve of the use of artificial camphor in making B.P. preparations. This is *à propos* of the Worcester camphorated-oil case. Mr. Marshall is a Birmingham man, and served his apprenticeship with Mr. Poole, Great Hampton Street.

The whole of the chemical and physical books of the 'Varsity Library have now been removed to Bournbrook, so that students or pharmacists who hitherto have gone to Edmund Street to make occasional reference have now to take a somewhat lengthy tram-ride. There is, however, the set of pharmacy books in the West Corridor, which may be consulted on application to the janitor, Mr. Evans.

### Board of Agriculture Leaflets.

Among the recently issued leaflets of the Board of Agriculture and Fisheries, 4 Whitehall Place, London, S.W., is a revision of No. 146, which refers to the value of keeping records of milk-yields. It gives directions for taking samples for transmitting to agricultural colleges which undertake milk analysis at a nominal fee. Leaflet No. 246 deals with the prevention of damage to hides, skins, and wool of animals. Warble fly is specially referred to on account of the enormous loss caused through the insect. It is recommended that the maggots be squeezed out with the two thumbs, this being a better plan than covering up the opening with mercurial ointment. Alternately a small amount of arsenic in solution may be inserted into the warble to destroy the maggot. The use of equal parts of Archangel tar and paraffin has also proved successful in Ireland. The loss caused by the use of tar for branding sheep is also noted. Leaflet No. 248 deals with the sclerotinia (*Botrytis*) disease of the gooseberry, or "die-back," which requires in its severe form heavy spraying with copper-sulphate solution (4 lb. in 100 gals. of water) or Bordeaux mixture. Isle of Wight bee-disease is the subject of Leaflet No. 253, in the treatment of which carbolic acid figures largely as a disinfectant of the woodwork of the hives. The leaflets are sent post-free on application, and letters of application do not need to be stamped.

### Sheffield Notes.

The Sheffield Pharmaceutical and Chemical Society have had an unusually heavy session this year, principally owing to a number of summer meetings for discussion of the National Insurance Bill.

Mr. E. J. F. Garner, late manager for the executors of the late Mr. Joseph Watts, chemist, of Attercliffe, has just left the Royal Infirmary, Sheffield, where he was a patient for seventeen weeks, having had an operation on one of his feet.

Mr. Bernard Lancaster, chemist, of Hillsborough, has sold his business and opened premises at Alton, in Lincolnshire. His Sheffield establishment is now in the occupation of Mr. Edward H. Swift, who was recently with Mr. Gibson, of Brighton, and formerly an apprentice to Mr. Norwood, of Wath-upon-Dearne.

### Cricket.

Wholesale Chemists' and Druggists' Cricket Championship.—The League match between Allenbury's C.C. and The British Drug Houses C.C., played at Crofton Park on August 26, resulted in a win for the former team. Scores: Allenburys, 64; B.D.H., 61. For the losers Parker made 32 runs, and Williamson scored 18 not out for the winners.

### From Various Courts.

At Newcastle Police Court last week, Thos. J. Williamson was charged on remand with breaking into the shop of Messrs. Proctor, Son & Clague, chemists, Holly Avenue West, Newcastle, and stealing 5*l.* 5*s.* Accused, who had been errand-boy at the pharmacy, was again remanded.

At the North London Police Court on August 25, Alfred Matthew Ellett, who was charged with making a false declaration in connection with his old-age pension (*C. & D.* August 26, index folio 337), was bound over in the sum of 5*l.* to come up for sentence if called upon within twelve months.

At Middlesbrough on August 28, Dennis Durant (15), errand-boy, was charged with stealing two cheques, value 2*l.* 3*s.* 2*d.*, belonging to his employer, Mr. W. R. Brackenbury, chemist and druggist, 219 Newport Road, Middlesbrough. It was stated that accused abstracted the cheques from letters given to him to post. The lad was sent to a reformatory school for three years.

At Manchester, on August 24, Edward Ormsher and his two sons were charged with stealing and receiving a letter containing postal orders and a cheque of the total value of 3*l.* 16*s.* 6*d.* from the letter-box of Dr. Cassell & Co., Ltd., patent-medicine dealers, King Street West, Manchester. The father was discharged, the boy Henry (14) sent to a shelter with a view to sending him to a school, and his brother Arthur (12) was placed under probation for a year.

At Reading on August 25, George Ralph, chemist's assistant, who was charged with attempting to commit suicide by taking opium, pleaded that his wages were not sufficient to enable him to have comfortable lodgings, and that his sister, with whom he lodged, threatened to turn him out. It was stated that accused's employers were willing to take him back at an increased wage and to provide comfortable lodgings for him, and Ralph was discharged with a caution.

At the Blackburn County Court on August 28, Messrs. Booth & Openshaw, Ltd., chemists and druggists, 7 Darwen Street, Blackburn, asked for a running order against J. T. Booth, painter and decorator, in respect of goods supplied. Defendant admitted that he had 3*l.* 10*s.* coming into the house, though owing to trade conditions he was not earning more than a journeyman at his calling as a painter. Judge Hamilton said this account was for goods supplied in the ordinary way of trade. The plaintiffs had supplied the goods, and he presumed that the defendant had been paid for the work he had done for other people. There was some sort of honourable understanding, therefore, that the defendant should meet the account, and when he came to that court he should be prepared with some offer. He made a running order with 5*s.* per week.

At West Ham Police Court on August 24, Messrs. Boake, Roberts & Co., Ltd., chemical manufacturers, Carpenter's Road, Stratford, were summoned for employing a lad under eighteen years of age longer hours than allowed under the Factory Act. Mr. F. Stern, for the defendant company, admitted that the infraction occurred during the strike period without the directors' authority. On the day in question the company's carmen were out on strike, and Mr. Boake himself was at that court prosecuting men for upsetting a van near their works. Everything was at a standstill practically, and, it being desired to get out to customers in the immediate neighbourhood a few parcels, a foreman asked this lad to stop. He was agreeable to do so, and was paid extra remuneration for it. The Magistrate said he thought justice would fully be met by dismissing the summons on payment of the costs, 6*s.*

### A Daring Theft.

A daring daylight robbery was committed at the pharmacy of Mr. W. C. West, chemist and druggist, 193 Brixton Road, London, S.W., on August 24. Mr. West is also a sub-postmaster, and at half-past three in the afternoon—the quietest part of the day—a man of respectable appearance, dressed in a blue serge suit and a straw hat, walked in and asked Mrs. West, who happened to be behind the counter, for 10*s.* worth of silver in exchange for half a sovereign. She gave it, but as he was about to leave the shop, a little girl came in and asked for some lavender-water. Mrs. West went to the door of a room immediately behind the shop to ask her husband to serve the child. She heard a noise, and turning saw a man hurrying out. On the footway outside he was joined by another man, and the pair then drove off in a taxicab which was waiting. The little girl said that the man had darted behind the counter and taken something from a drawer. On making a hurried examination Mr. West discovered that a bag containing 60*l.* in sovereigns and half-sovereigns had disappeared. He rushed into the street, but the taxicab had disappeared. Mr. West is of opinion that the thief had made himself acquainted beforehand with the arrangement of the shop-drawers.

### Arsenical Poisoning Mystery.

The Lancaster Coroner, on August 30, deemed it necessary to adjourn the inquest on James Henry Bingham (37), the keeper of the Lancaster Castle Assize Courts, owing to the sensational turn taken by the evidence. It appeared

that deceased was the fourth member of the family who had met with a sudden death in the course of nine months —viz. :

November 12, 1910.—Miss Annie Gertrude Bingham, aged thirty.

January 23, 1911.—Mr. William Hodgson Bingham (father), aged seventy-three.

July 22, 1911.—Miss Margaret Bingham, aged forty-eight.

August 15, 1911.—Mr. James Henry Bingham, aged thirty-seven.

Similar symptoms—sickness and diarrhœa—had been noticed in all the cases, but it was left to Dr. Mackintosh, who was called to the last case, to suspect arsenical poisoning. Mr. W. H. Roberts, assistant to Dr. Collingwood Williams, County Analyst, Liverpool, deposed to finding traces of arsenic in the stomach, kidneys, liver, and spleen of the dead man. The Coroner : "Would you say that the whole body must have been impregnated with arsenic?" Witness : "I should say there would be present more than a fatal dose." Coroner : "You think deceased must have died of arsenic-poisoning, and there is no doubt about it?" —"There is no doubt." Mr. Oglethorpe (solicitor for the relatives) : "Would it be possible for the arsenic to come from the copper cylinder adjacent to the water-supply?"—"No, absolutely no. Impossible." Deceased's brother, Mr. Wm. Bingham, a probate clerk, gave the history of the family mourning, and admitted that they had had trouble with an illiterate sister, Edith Bingham, whose intellect was weak. (The latter has been arrested on a charge of causing her brother's death.) Witness said he was present when Detective-sergeant Johnson, of the Lancaster police, found in a rubbish hole near the judges' entrance to the Castle Courts two tins of "Acme" weed-killer covered over with rusty chains. The weed-killer had been used on the Castle Parade, and was labelled "Poison." The tins had not been disturbed for some time. He did not know that weed-killer contained arsenic.

# IRISH NEWS.

**When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.**

### Brevities.

Mr. Wm. Haslett, druggist and grocer, Ormeau Road, Belfast, has taken over the premises occupied by Mr. Jas. Matier, Scotchmount, Lisburn Road, as a branch establishment.

Sir Charles Cameron, C.B., Dublin, was presented with a silver loving-cup by some members of the Royal Institute of Public Health at the recent Congress held in Dublin.

Mr. J. J. McHugh, Ph.C., proprietor of Medical Halls at Kildare and Athy, has opened a branch establishment at Charlotte Street, Newbridge, under the management of Mr. T. B. McHugh, Ph.C.

# SCOTTISH NEWS.

**When sending newspapers to the Editor please mark the items of news to which you desire to call his attention.**

### Brevities.

The Dundee District Committee of Forfar County Council has decided to adopt a system of free vaccination in the Dundee district.

Mrs. R. S. Ramsay, wife of Mr. R. S. Ramsay, chemist, Cardenden, Fife, was a first-prize winner at the Auchterderran Flower Show last week.

A woman named Margaret Laing or Millar was fined 7*s.* 6*d.*, with the option of three days' imprisonment, at the Cowdenbeath Police Court on August 23, for stealing nine packets of indigestion tablets, value 5*s.* 7½*d.*, from a local chemist.

Dr. Adam Rolland Rainy, M.P. for Kilmarnock Burghs, who died on August 26 at North Berwick, studied medicine at Edinburgh and on the Continent, and practised for some time as a surgeon-oculist in London. He was a son of the late Principal Rainy.

Fire broke out at Swan's Drug Stores, 19 Hedden Street, Aberdeen, on Tuesday, August 29. The fire orginated by fly-paper liquid boiling over the pot in which it was being prepared. The outbreak was extinguished by means of chemicals used by the members of the fire-brigade. The damage is covered by insurance. There is at present an exceptionally large demand for fly-papers in Scotland, and chemists have experienced some difficulty in obtaining deliveries from manufacturers.

### Edinburgh.

The Lothian honey harvest is reported to be very successful from the beekeepers' point of view.

There was quite a famine of fly-papers locally last week, and most of the wholesale houses were completely sold out of the sticky variety. The scarcity, however, enabled one pharmacist to prove to his own satisfaction how fickle is the public fancy. He procured a few of a different kind (a friendly neighbour's old stock), and after strenuous endeavours managed to sell them. This week, when he carries a full stock of the quondam favourites, he has the utmost difficulty in persuading customers to purchase. They want the kind that he induced them to buy a few days ago.

### University of St. Andrews.

On the occasion of the celebration this month of the quincentenary of the foundation of the St. Andrews University, a large number of honorary degrees are to be conferred, chiefly upon delegates, and the following are among those who will receive the honorary degree of LL.D. :

Sir Thomas Clifford Allbutt, K.C.B., M.A., M.D., D.Sc., LL.D., Regius Professor of Physic, University of Cambridge.

Sir Thomas Barlow, Bart., K.C.V.O., M.D., D.Sc., LL.D., (President, Royal College of Physicians, London).

Alexander Crum Brown, M.A., M.D., D.Sc., LL.D., former Professor of Chemistry, Edinburgh University.

Major Percy Alexander MacMahon, D.Sc., F.R.S., London.

Professor Raphael Meldola, D.Sc., F.R.S., Professor of Chemistry in Finsbury Technical College.

Professor William Henry Perkin, Ph.D., Sc.D., LL.D., M.Sc., F.R.S., Victoria University of Manchester.

Professor William Jackson Pope, M.A., M.Sc., F.R.S., University of Cambridge.

Lieut.-Colonel David Prain, M.A., M.B., LL.D., F.R.S., etc., Director, Royal Botanic Gardens, Kew, Surrey.

Robert Saundby, M.D., LL.D., M.Sc., Professor of Medicine, University of Birmingham; President, British Medical Association.

Sir Joseph John Thomson, D.Sc., LL.D., Ph.D., F.R.S., Professor of Physics, Royal Institution, London.

In the course of a series of articles on the history of the University, "The Scotsman" recalls the fact that during a certain period the University did not furnish the means for a complete medical education. It was in 1858

empowered to grant the degree of Doctor of Medicine to properly qualified medical practitioners, at the same time limiting the number to ten in any one year, and requiring the appointment of examiners in addition to the professors. The reason for the restriction was that the University within nine years had conferred medical degrees on 1,231 persons who were almost entirely educated and resident in England and Ireland, and in no way connected with St. Andrews. The University capital had increased from 2,278*l.* in 1834 to 3,495*l.* in 1840, to 6,986*l.* in 1854, and to 15,300*l.* in 1863. This extraordinary prosperity was caused by the annual surplus income from medical graduation fees. In 1862 alone 604 were capped M.D. All this gave occasion to "observations unfavourable to the University," as the report of the Commissioners gently puts it. The Commissioners of 1889 ordained that the power to confer such degrees on the students of other Universities be discontinued.

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The National Congress of Applied Chemistry will be held at Turin from September 23 to 28. Professor Miolati will give an experimental demonstration of the use of atmospheric nitrogen for industrial purposes, and a general discussion will take place on the fiscal and Customs practice in regard to the industrial use of alcohol.

# FRENCH NEWS.

(From the "C. & D." Paris Correspondent.)

Pharmacy Inspection.—The report drawn up by M. Rousseau (of Ermont) on the Anti-Adulteration Law of August 1, 1905, for the Versailles Chamber of Commerce, is generally and favourably commented upon. M. Rousseau remarks that when the French Act was first passed, and local laboratories created, the zeal of newly created inspectors and authorities considerably outran their discretion. They saw "frauders" behind every grocer's counter and every pharmacist's carboys, and if they "drew blank" on their first visit to the cover they would return with unwearying persistence in hopes of dislodging and chasing their quarry. So far as pharmacists and druggists are concerned (and this category, judiciously remarks M. Rousseau, "figures for 12,000 electors" in France), the chief trouble was the Codex standard. Theoretically all medicaments not inscribed in the Codex are secret remedies, and consequently fraudulent. Yet the pharmacist must necessarily execute the doctor's prescriptions, and he may thus be placed in a technically illegal and particularly disagreeable situation. M. Rousseau's proposed remedy is the revision of the "Law of Germinal." Again, M. Rousseau insists on the necessity of not exposing the accused until it is proved that he has been really and intentionally guilty of adulteration. In these days of purchase of ready-made "put-up goods" the most honest shopkeeper may have on his shelves articles not technically pure; he should have the chance of claiming central analysis and, if possible, legally proving that he bought the goods as pure before his name is published as being convicted of adulteration.

Wholesale Druggists' Association.—The annual dinner of the French Wholesale Druggists' General Association was held recently at the Palais d'Orsay, M. Charles Petit, President of the Tribunal of Commerce, presiding. Among the guests were MM. Vaudin and Crinon, representing the French Pharmacists' General Association; Pharmacist-Principal Jegou, M. Halphen (of the Analysis Laboratory of the Ministry of Commerce), M. Vinot (President of the Druggists' Assistants' Association), several pharmaceutical senators and deputies (MM. Jean Morel, Poirrier, Cazeneuve, Faillot, Schmidt), and a little group from the Paris Superior School of Pharmacy, including Professors Guignard, Gautier, Bourquelot, and Béhal. Some of the last named were personally alluded to by the Chairman in his after-dinner speech as having received with "the best grace in the world" the "numerous and radical" modifications to the Codex proposed by the Druggists' Association. "All promised me to consider them with indulgence, and I know that many have already been formally approved." The President also alluded to the excellent relations which existed between the druggists and their assistants. M. Vaudin referred to the question of a new Pharmacy Law. A personage who at the time occupied a high official situation had remarked to him, "I'm afraid we must diminish that old Germinal structure by sections and rebuild the frontage." The present system of patchwork could hardly continue, and he believed wholesale druggists shared this view.

The German Pharmacist through French Spectacles.—M. Labesse, having passed three weeks in a German city in daily and personal contact with doctors and pharmacists, communicates his impressions to his French colleagues. The pharmacist's social position, thanks to limitation, may be compared to that of a French notary, but as it requires quite a fortune (25,000*l.* to 40,000*l.*) to buy a city apotheke, this position is a luxury for the capitalist. The qualified men serving behind the counter until such time as a vacant pharmacy comes into the market, may be compared to the French notary's head-clerk, so often engaged in a similar task of waiting for dead men's shoes. The pharmacies are thus well-manned as well as spacious, and the analysis laboratory always busy. The State tariff of sale prices practically corresponds to the well-known French list drawn up by the Loiret Pharmacists' Association. The popular medicaments are those employed in France twenty years ago: Cinchona and its preparations, nux vomica, alkaloids, and the like; antipyrin and a host of new German products, so well known abroad, have by no means the large home consumption that might be expected. The export trade in chemicals and pharmaceuticals is, continues M. Labesse, a commercial speculation. Druggists are very numerous, and delight in showcards and models of heads, feet, and hands "before" and "after" the usage of products. Nor do they neglect "cutting"—offering certain French products below the prices actually paid by Parisian pharmacists. The aspect of their shops is that of a French "commercial" pharmacy, and they sell almost every drug except poisons. It is not an uncommon occurrence for a newly arrived Frenchman to enter one of these establishments when in search of a pharmacy. They are, of course, not allowed to dispense prescriptions; but even this regulation can be set at naught by a very simple subterfuge. The doctor, instead of writing down the drugs required, simply dictates his list, and one of the patient's family writes it down and fetches what is required from the druggist. If an accident occurs neither doctor nor druggist is responsible. [Compare with the articles in the *C. & D.*, July 29, index folios 141 and 222.—Editor, *C. & D.*]

# INDIA AND THE EAST.

(From the "C. & D." Correspondents.)

Breach of Promise.—Miss Curtis Lane, a nurse in the Walker Hospital, Simla, was awarded Rs. 1,500, with costs, against a Mr. Mackenzie, who was employed for some time with Messrs. E. Plomer & Co., chemists and druggists, Simla.

Illicit Cocaine.—The Bombay police have succeeded in capturing 14 lb. of cocaine from a Mahomedan named Abdul Ismail, who was stopped in the street carrying it under his arm. At his lodgings a further 40 lb. was found. The value of the cocaine is estimated at Rs. 50,000.

Free Importation of S.V.M.—The Board of Trade have received information from the Federated Malay States Trade and Customs Department to the effect that no duty is charged on spirits which have been effectually and permanently rendered unfit for human consumption on importation into the Federated Malay States.

Dr. Nagayoshi Nagai, Professor of Pharmaceutical Science at Tokyo University, and his German wife, celebrated their silver wedding at their residence at Woyama, Tokyo, on April 27. Dr. Nagai is a pioneer of modern pharmaceutical methods in Japan. He learnt his pharmacy in Germany, where he stayed for fifteen years.

Japanese Pharmacists' Association.—At the eighteenth meeting held at Kyoto recently, Dr. Shimoyama presided over a gathering of about four hundred pharmacists. Simultaneously a meeting of thirty pharmaceutical journalists passed a resolution calling for revision of the regulations governing pharmacy in Japan.

Merchandise Marks Act.—In the course of the annual review of the foreign sea-borne trade of the Madras Presidency during 1910-11 several instances are mentioned of attempts to import articles under false descriptions which were checked by means of the Merchandise Marks Act. Six consignments of kegs described as containing "fine white zinc" were found to be adulterated to the extent of 86.6 per cent. In another case a consignment from London labelled "reduced spirits of turpentine" was found to contain no turpentine whatever.

Quinine in Burma.—A resolution of the Burmese Government expresses the desirability of every possible measure being taken for encouraging the use of quinine by children, owing to the very high mortality from malarial fever. The Lieutenant-Governor has decided to grant special concessions to managers of schools to become retail vendors of quinine. The Director of Public Instruction has been asked to arrange that Deputy-Commissioners are from time to time supplied with lists of names of managers of aided schools who are willing to become retail vendors in areas in which other vendors have not already been appointed.

# AUSTRALASIAN NEWS.

**"The Chemist and Druggist" is regularly supplied by order to all the members of nine Societies of Chemists in Australia and New Zealand, as well as to other Chemists in business there.**

## The Commonwealth.

FLY-PAPERS.—By a Customs regulation, paper in rolls for the manufacture of fly-papers is to be admitted free, provided that security is given by the owner that it will be used for that purpose only, and that evidence of such use be given to the satisfaction of the Collector within six months after delivery by the Customs.

## New South Wales.

THE PHARMACY BILL passed its third reading in the Legislative Council on July 5.

MR. CLEMENT B. VANCE, whose arrival from Ireland was mentioned a few months ago, and who was with Felton, Grimwade & Co., has now joined the staff of Oppenheimer, Son & Co., Ltd.

MR. FRED P. J. GRAY, the new member of the Council of the Pharmaceutical Society, was born at Goulburn, N.S.W., on October 22, 1877. He came to Sydney at the age of fourteen, and went into the pharmacy of Mr. S. N. Ayres at Enmore. During the ten years he remained with Mr. Ayres he passed the Preliminary examination, the University examinations in 1899, and the Final in 1900. He spent a year or two as a *locum tenens* in the country and in the city, managed the dispensing department of Mr. S. Harris, King Street, Sydney, for two years, and went into business for himself in Bondi in March 1904, where he has been ever since. He was the first pharmacy student at the Sydney University under the Act of 1898, and holds the first certificate by examination of the Pharmacy Board under that Act.

PHARMACEUTICAL SOCIETY.—At the meeting held in Sydney on July 11, Mr. A. Wadsworth (President) welcomed Mr. F. P. J. Gray, the newly elected member. Mr. F. T. Lorhmann, the Hon. Secretary of the Perth Chemists' Association, wrote stating that eight o'clock closing had been decided upon there, and a proposal for closing at that hour was to be brought before Parliament. The Association wanted an expression of opinion from the Council as to what is a reasonable hour for closing, and also what is meant by an urgent prescription. Mr. Wadsworth said that they could hardly express an opinion about early closing. The meeting of chemists of the metropolitan area, about twelve months ago, had decided upon nine o'clock, but since then some of those who had voted for that hour had changed their opinion in favour of eight o'clock closing. As to what constituted an urgent prescription, it was thought that this was a matter for the chemist to settle himself. In regard to the manuscript of the Australasian Formulary, Mr. R. C. Cowley wrote stating that he had kept a copy of a portion of the manuscript, but some of the Formulary could not be replaced, and he now asked the Council to put in a claim for 100*l.* for the part which could not be replaced. Mr. Wadsworth said that in regard to the selling of methylated spirit on Sunday he had an idea that the police thought chemists a great deal to blame. The Council should make it known that they deprecated the selling of the spirit to any but respectable people. The majority of chemists could pick out the people who wanted it for legitimate purposes. No doubt some chemists sold more than they should. It was decided to circularise members on the subject.

PHARMACY BOARD.—At the meeting held in Sydney on July 11, a letter was read from Mr. L. Herrin, of Corowa, asking if the Board would accept his Preliminary examination for Victoria and his four years' apprenticeship in Victoria. A somewhat similar letter was read from Mr. H. M. Zieman, asking that his apprenticeship for Queensland be accepted. It was decided to inform both applicants that as the law stands their applications could not be entertained. The only way is for them to pass the Final examination in their own State. The Registrar reported that at the Preliminary examination held on June 16, ten out of twenty-five candidates passed. John Duncan, of Sydney, pharmaceutical chemist of Great Britain, was registered under the Pharmacy Act and also under the Poisons Act. The Registrar reported that Messrs. Allport, Muir, and Dombrain had called at the office to protest against the regulation under which it was declared that fluid preparations containing 3 per cent. or more carbolic acid or its homologues are poisons under the second part of the schedule. They asked that this be altered to 25 per cent., so that manufacturers might supply disinfectants according to the Board of Health standard without being compelled to mark the goods with the word "Poison," and that it may be sold by any person and not only by those persons who hold a poison-licence from the Board. It was decided to write to the Treasury that the Board held the opinion that 3 per cent. is quite high enough.

## Victoria.

A CHEMISTS' ASSISTANTS' ASSOCIATION was formed in Melbourne on July 3. Mr. Barclay, assistant to Mr. J. H. Goode, Moonee Ponds, is the Secretary *pro tem.* The primary object is for social purposes, but shop hours and pay are to be considered.

EIGHT O'CLOCK CLOSING in Melbourne and suburbs has now been secured by the efforts of the members of the Council of the Pharmaceutical Society, who have given much time to canvassing pharmacists in the district and securing their signatures. It was a hard fight to get many to add their names to the list, but a good majority was easily obtained.

THE VICTORIAN OPTICAL ASSOCIATION has been formed to federate into one organisation all members of the optical profession in Victoria. The Association seeks to raise the status of its members and to protect their interests as well as those of the general public, to elevate the standard of optical education among its members, and to promote friendly intercourse among opticians.

THE PRIVATE HOSPITALS BILL was introduced into the Legislative Council and read a first time on July 5. Clause 24 provides that no person other than a registered pharmaceutical chemist or a medical practitioner shall dispense or compound any medicine for internal use in a private hospital. This differs slightly from the corresponding clause in the New South Wales Act, but it is a satisfactory safeguard of the interests of patients in private hospitals.

HOSPITAL DRUG-SUPPLIES.—An important movement has taken place at the instance of the Treasurer of the State. The Treasurer communicated with the committees of the various hospitals and charitable institutions, stating that he considered it advisable to make it a condition of the Government grant that the goods supplied should be contracted for and that they should be standardised. A conference of the committees of the institutions has been held which has recommended that an advisory board should be appointed of representatives of each of the metropolitan hospitals, to meet regularly and supervise generally the purchase of all requirements for the various institutions, whether by contract or by the open-buying system, or partly by one system or the other as may be best.

RAT-POISON.—Dr. Burnett Ham, Chairman of the Board of Health, has had a curious experience. He had prepared a special rat-poison when in Queensland, which proved to be very successful. This was known in Victoria, and he received a great many applications for some of the poison. He finally made some arrangement whereby it should be prepared and sold to the public, but through misunderstanding it was placed in the hands of a particular firm who erected a special plant for its manufacture, and registered a striking trade-mark with the monogram of Dr. Ham and his name upon it, and issued an excellent circular announcing that they were the sole authorised manufacturers and distributers. This was without Dr. Ham's knowledge. When it came before him he insisted upon the withdrawal of all the circulars, and relieved the manufacturers of the stock that they had prepared. The manufacturers did not know that the preparation could only be sold by pharmacists and licensed vendors of poisons, as the Vermin Destruction Act does not deal with rats.

# SOUTH AFRICAN NEWS.

(From "C. & D." Correspondents.)

"The Chemist and Druggist" is regularly supplied by order to all the members of the seven Societies and Associations of Chemists in British South Africa, as well as to other chemists in business there.

## Natal.

Personal.—Dr. E. Hill, who has been M.O.H. for Natal for the past ten years, has relinquished his office and retired on pension. The Public Health Department at Maritzburg was to be closed at the end of August.

Poisons Schedule Exemptions.—By proclamation the following have been added to the list of exempted articles in Schedule B of the Medical and Pharmacy Act, Natal: "Dips, washes, and sprays used in farming; materials, *including arsenite of soda*, required in the making of dips, washes, and sprays used in farming." [This is the outcome of the test-case heard in Durban in February (see *C. & D.*, April 1, index folio 461), when it was decided that arsenite of soda was exempted from requiring a poison-licence.]

## Orange Free State.

Personal.—Dr. P. Targett Adams has been appointed Assistant Medical Officer of Health for the Union of South Africa, and will be stationed at Bloemfontein. He has been Government Analyst and Bacteriologist at Bloemfontein for the past eight years. He was M.O.H. at Maidstone during the great typhoid epidemic there some years ago, and has held numerous appointments as M.O.H. in England, India, and elsewhere. He succeeds Dr. G. Pratt Yule, who has retired on pension.

Medical and Pharmacy Council.—Drs. V. Manning, A. B. Ward, S. M. de Kock, and Mr. W. B. Jeffreys, chemist and druggist, have been elected as members. These gentlemen, who were members of the last Council, all tendered their resignations at the beginning of the year as a protest against certain remarks made by General Hertzog, Minister of Justice, in which he alleged political bias in the action of the late Council in refusing to register certain doctors with German training and degrees. The unsuccessful candidates were Dr. Otto Krause, Dr. Loubser, and Mr. J. Friedman, chemist and druggist. Another chemist has yet to be nominated by the Government in the place of Mr. S. S. Hewitt, who resigned in January last, but whose resignation has not yet been officially accepted, owing to the fact of the late Council, with two exceptions, resigning *en bloc*. Mr. A. Fowlie and Mr. F. Carter have been nominated as examiners in dispensing pharmacy and materia medica at the August examinations for chemists and druggists.

## Rhodesia.

Masonic.—Bro. W. Dawn Copley, chemist and druggist, Bulawayo (President of the Pharmaceutical Society of Rhodesia), was installed P.W.M. of the Bulawayo Lodge on June 24.

## Transvaal.

Tennis.—The tennis tournament final in connection with the Transvaal Chemists' Athletic Association was played on July 30 between Messrs. H. H. Burrowes and A. Solomon, and resulted in a win for the latter.

Personal.—Mr. J. C. Christie, of Fordsburg, who is now on a visit home, was entertained before he left to a dinner at the Goldfields Hotel, Johannesburg, by about forty of his friends, Dr. Gilchrist occupying the chair. After a splendid repast the usual toasts were given, and all wished him a very pleasant voyage and a speedy and safe return. Any communications during his stay in England should be addressed "care of Messrs. Evans Sons Lescher & Webb, Ltd., 60 Bartholomew Close, London, E.C."



# German Apotheker Verein.

A number of questions of great importance to German pharmacy were discussed at this year's general meeting of the German Apotheker Verein, which took place in Freiburg (Brunswick) on August 22 and 23. The programme was on the lines reported in the *C. & D.*, July 29, p. 141. The new position created by

The Imperial Insurance Bill

was dealt with on Tuesday by Dr. Vogt, of Gutzbach, who described the Bill as "one of the most forceful and meritorious works of our time," though the wishes of German pharmacists had not been met in all particulars. While the compulsory insurance of pharmacists' assistants and pharmaceutical students with a yearly salary of m.2,500 (125*l.*) had been obtained, the invalidity and life-insurance clauses have been extended to pharmaceutical employés with a yearly salary of 150*l.*, and pharmacists' assistants may participate in the accident insurance. Dr. Vogt pointed out that the formation of a Friendly Society proper for pharmacists remains to be accomplished, or pharmacists will otherwise have to associate themselves with the existing chemical societies, whose rates of contributions are particularly high. With regard to the relations between pharmacists and the sick-clubs, all that had been hoped from the Imperial Insurance Bill has not been obtained, as Dr. Vogt admitted; and pharmacists, he pointed out, have had to sacrifice their demands for a definite regulation of the discount question, while the attempt to exclude the settlement of retail prices from the working of the Bill has failed. Dr. Vogt expressed himself in favour of renewed representations to the Government with a view of obtaining such price-conditions as would enable the present sufferer, the small pharmacist, to carry on his business at a reasonable profit.

Pharmacists' Assistants.

A proposal brought by Geheimrat Dr. Schmidt, of Marburg, that pharmaceutical candidates, trained as practical assistants in a pharmaceutical institute, should receive equal recognition with candidates trained as assistants in a pharmacy properly speaking, was, after considerable discussion, unanimously approved. Geheimrat Dr. Schmidt pointed out that the scarcity of assistants who have had a regular training in the pharmaceutical institutes has resulted in a deplorable understaffing of these institutes. As far as the pharmaceutical candidate is concerned, the Government now recognises as a qualification a period of four years spent as assistant in such an institute; but as a further period of three years of actual practice in a pharmacy is demanded, and the usual period of military service must be fulfilled, candidates for pharmacies who have followed such a course are, on account of their age, placed at a disadvantage when applying. As a result, the post of assistant in a pharmaceutical institute is shunned, the dearth of institute-trained pharmacists' assistants resulting in a lack of high-school teachers having a pharmaceutical training. A lively discussion was raised by the question of the attitude of the Society towards

The Encroachments of Druggists,

due to the aggressive policy adopted by a new association of pharmacists. The association was formed recently for the purpose of safeguarding the economic rights of pharmacists, particularly of those in country places, many of whom are of opinion that their interests are rather neglected by the Apotheker Verein. One of the chief features of this youthful society has been the fight against the druggists, every step being taken to show up any transgression on the part of the latter. Even a paper, humorously termed the "Waiting Paper," was published, so that clients while waiting to have a prescription filled could read about the delinquencies of the druggists. At the meeting a resolution deprecating this aggressive policy of the new association, which has become rather an *enfant terrible*, was unanimously adopted.

Competition.

Particular interest attaches to the declaration read by the President, Dr. Salzmann, with regard to the relationship

of pharmacists to the pharmaceutical and chemical industry. The principal point of contention lies in the fact that the pharmacists resent the competition of industrial firms in placing on the market their preparations, either in the form of tablets or of solutions ready for use, thus depriving the pharmacist of the possibility of exercising his professional calling and degrading him to the level of an ordinary dealer, as he is merely required to hand over the counter a ready packed speciality. As regards the proposal to compel pharmacists to prepare their own galenicals, Dr. Salzmann stated that it was regrettable that the Government had allowed itself to be "frightened by the opposition of the manufacturers." The Verein now proposes to approach those manufacturers who encroach upon the pharmacist's rights in order to persuade them to mend their ways, and a resolution to this effect was adopted.

### Tenure of Pharmacies.

The annual report dealt with the refusal of Dr. Delbrueck, Secretary of State for the Interior, to carry through the proposed regulations providing uniform conditions in the tenure of pharmacies for all Germany, and after full discussion a motion was adopted deploring any intention of abandoning the imperial scheme in favour of action by individual States.

It was decided to hold the next annual meeting in Nüremberg.

## American Pharmaceutical Association.

THE fifty-ninth annual meeting of the American Pharmaceutical Association was held at the Hotel Vendome, Boston, Mass., on August 14 to 19. At the opening meeting Mr. E. G. Eberle, of Dallas, the President, welcomed the members, and then followed speeches of welcome by Lieut-Gov. Frothingham, Acting-Mayor Collins, Mr. R. H. Walker (Texas), Mr. G. S. Smith (Boston Chamber of Commerce), and Mr. C. H. Packard (local Secretary).

### The President's Address

was an interesting one. He referred to the moral courage needed by those who have convictions on a subject which should not be swayed one way or another for temporary reasons. The time has come, said Mr. Eberle, for higher pharmaceutical education. The drug-stores that employ slip-shod methods and ignorant clerks are not successful in any sense of the word, and the public are awakening to the importance of having experienced, educated men in a drug-store, especially behind the prescription-counter. He made the following reference to the now famous Wiley case: "During the past few months several of our esteemed members who are active in the administration of the Pure Food and Drug Act, and also one who is an honoured ex-President of this Association, have been placed in a more or less embarrassing position. How far this Association desires to go in expressing itself relative to this matter, or what the attitude of the President should be, may be deserving of careful judgment. I, however, assume the authority to address the President of the United States, protesting against the removal of the chief of the Bureau of Chemistry, Department of Agriculture, Dr. W. H. Wiley, and testify my recognition of his integrity, ability, sound judgment, and strict adherence to duty I consider that such or some similar statement is due from this Association, and hope that my action will meet with your endorsement."

The President's speech was followed by remarks from Mr. F. L. Carter (National Wholesale Druggists' Association), Mr. Godbold (National Association of Retail Druggists), Dr. Hutchins (American Medical Association), Professor Alocans and Mr. Wilbert (Public Health Department and Marine Hospital).

In the evening a reception was held at the Hotel Vendome, at which there were 300 present, and the Alumni Association of the Massachusetts College of Pharmacy also gave a dinner at the Hotel Plazza to 160 guests.

### Annual Reports.

On August 15, before the meeting began, the President was presented with a gavel from the Dallas Pharmaceutical Association. Then followed the reports of the Treasurer and General Secretary. The membership in the Association is now 2,490. Of this number 2,353 are active, 107 life, 24 "old-time" life members, and six honorary members. These statistics were included in the report of Treasurer Dr. Henry M. Whelpley, of St. Louis. He also reported that the Association has $15,701 in cash and bonds and is custodian of several funds. One of these, the Hallberg Memorial Fund, now amounts to $4,000. The committee in charge is anxious to increase the fund to $5,000. The report of the regular Secretary, Mr. Charles Caspari, jun., of Baltimore, Md., showed that receipts of the Association in the year ended July 1 were $3,161, and the expenditure $1,023.

### Nomination of Officers.

The committee on nominations gave out the following names for officers to be elected by a mail ballot during the year: For President, W. B. Day, of Chicago; Charles Holzhauer, of Newark, N.J.; William Mittelbach, of Boonsville, Mo.; for Vice-President, Jose Alocans, of Havana, Cuba; C. M. Ford, of Denver, Colo.; Otto F. Claus, of St. Louis; R. H. Walker, of Gonzales, Tex.; C. A. Mayo, of New York; W. J. Teeters, of Iowa City, Ia.; J. O. Burke, of Nashville, Tenn.; and A. H. Clark, of Chicago; for Council, F. C. Godbold, of New Orleans; W. C. Alpers, of New York; George B. Kauffman, of Columbus; O. C. W. Johnson, of Seattle, Wash.; L. E. Sayre, of Lawrence, Kan.; E. Berger, of Tampa, Fla.; J. C. Wallace, of New Castle, Penn.; F. W. Meissner, jun., of La Porte, Ind.

### The U.S.P.

After this Professor Remington introduced Dr. S. Solis Cohen, Chairman of the Sub-Committee on Scope of the U.S. Revision Committee, who addressed the delegates on the subject "The Revision of the Pharmacopœia."

He gave an instructive address, in which he showed the close relationship of the Pharmacopœia to the practice of medicine. He also spoke of the great strides made in the last fifteen years by pharmacists and physicians in acquiring a greater knowledge of drugs. This, he said, could readily be seen by comparing the curricula of the former period with one of to-day. He pleaded for a Pharmacopœia broad enough to contain all preparations that can be used to advantage in caring for the sick.

Professor J. P. Remington, on behalf of the Executive Committee of the United States Pharmacopœia Revision, presented the first report of the Committee, and invited comments. The report gave a list of articles in the ninth edition, and of those dropped at the last revision. The following are the new articles which it is proposed to add to the next edition:

- Ammonium bifluoride.
- Antitetanic serum.
- Apiol.
- Aspidospermine.
- Bismuth beta-naphthol.
- Buchu (long).
- Caffeine sodio-benzoate.
- Calcium chloride (hydrated crystals).
- Calcium glycerophosphate.
- Calcium lactate.
- Carbonic acid (compressed).
- Condurango.
- Creosote carbonate.
- Crocus.
- Diacetyl-morphine.
- Diacetyl-morphine hydrochloride.
- Diastase.
- Emplastrum cantharidis.
- Erythrol tetranitrate.
- Fluorescein.
- Hydrastine hydrochloride.
- Mercury salicylate.
- Milk of magnesia.
- Milk of bismuth.
- Oxygen (compressed).
- Phenolphthalein.
- Picric acid.
- Pine-needle oil.
- Potassa sulphurata.
- Quinine and urea hydrochloride.
- Saccharin sodium salt.
- Sodium cacodylate.
- Sodium glycerophosphate.
- Sodium perborate.
- Solution of hydrogen dioxide (30 per cent.).
- Theobromine sodio-salicylate.
- Trioxymethylene.
- Uranium nitrate.
- Vaccine virus.

### Commercial Interests Section.

In the afternoon the first meeting of this section was held under the chairmanship of Mr. B. E. Pritchard, of Pittsburg. The following papers were read: "A Neglected Asset," J. J. Bridgemen, Philadelphia; "Business

Hints from Department Stores," B. E. Pritchard, Pittsburg, Penn.; "Factors to be Taken Into Consideration in the Extension of Credit," C. Mahlon Kline, Philadelphia; "Simplified Accurate Methods of Recording Charge Sales," Ambrose Hunsberger, Philadelphia; "Principles and Practices of Bookkeeping," H. P. Hynson, Baltimore, Md.

The evening was occupied by a smoking-concert at the German Working-men's Association, Amory Avenue, when 250 delegates were present. Dr. W. C. Alpers was in the chair.

## OUR AMERICAN LETTER.

(Special Correspondence to the "C. & D.")

**The National Association of Retail Druggists.**—Great preparations are being made for the Niagara Falls convention of the N.A.R.D. It is expected that the attendance will be larger than it has ever been before. The scenic beauties of the place will, it is hoped, prove a great attraction. Legislative matters, which have been very acute in this country during the last few months, will probably come up for serious consideration, and an ambitious scheme of legislation will possibly be developed in order that the pharmaceutical profession of the United States may be given the enforcement of all laws involving its own interests.

**Assistants Represented.** — The drug "clerks" have been attempting for several years to gain representation on the several State Boards of Pharmacy. The newly organised national society of assistants, known as the National Association of Pharmacologists, at its first annual convention held recently in Columbus, Ohio, decided to submit every year the names of two clerks to the Governor of each State, requesting him to appoint one of the men to the Board of Pharmacy. In the meantime, an association of clerks in New York City has just succeeded in getting one of its members appointed to the Board—John R. Wall, who, strictly speaking, is not after all an assistant, as he is dispenser in the Bellevue Hospital.

**American Chemical Society.**—At the recent meeting of the American Chemical Society in Indianapolis, the Division of Pharmaceutical Chemistry had three most interesting sessions, with an attendance of from twenty to fifty members and visitors. Mr. B. L. Murray, of Rahway, N.J., the presiding officer, stated that the present membership is over 150. The first and third sessions of the division were held at the German House, where the meetings of the other divisions and sections of the Society took place; while the second session was held at Messrs. Eli Lilly & Co.'s new science building, where Professor W. A. Pearson delivered an illustrated lecture on "The Manufacture and Testing of Drugs." This was followed by a paper on pharmacopœial revision by Professor Joseph P. Remington and a general discussion of pharmacopœial matters. Twenty other papers were presented at the meeting. The next meeting will be held in Washington during the Christmas holidays.

**P., D. & Co.'s Progress.**—In a paper by Professor W. A. Pearson on "The Manufacture and Testing of Drugs," which was presented before the Section of Pharmaceutical Chemistry of the American Chemical Society, the following particulars were given of the establishment of Messrs. Parke, Davis & Co:

> In the beautiful city of Detroit are located extensive pharmaceutical manufacturing establishments, the largest being that of Parke, Davis & Co. Six city blocks are utilised, and branch laboratories are maintained in Walkersville, Canada, and Hounslow, England. About 2,000 employés are engaged in the Detroit laboratories, 300 in the Canadian laboratory, and 250 in the laboratory at Hounslow, England. This company employs about 360 travelling representatives. The business was established in 1866, and is now capitalised at $8,000,000. The firm does an annual business in all parts of the world totalling about $10,000,000. General pharmaceutical products, digestive ferments, and many chemical and biological preparations are manufactured. A large amount of research and experimental work is constantly carried out.

We understand that the figures are rather under the mark.

**Chain-stores.** — It was feared a year or two ago by many chemists that the "chain-store" or company-pharmacy movement in the States would imperil the future welfare of the individual pharmacist. These fears, however, are proving more or less ill-founded, and the subject was discussed with considerable interest at the recent meeting of the New York State Pharmaceutical Association, this being the State where most of the chain-stores are located. It was generally felt by the speakers in the discussion that the individual druggist need have no fear if he cultivates the element of professionalism on the one hand, and if on the other he will impress his personality upon the purchasing public. Thomas Stoddart, himself the owner of a large pharmacy in Buffalo, declared pungently that the "chain-store" would prove a stimulant rather than a depressant to the average chemist.

## British Guiana Pharmacy.

THE Pharmacy and Poison Ordinance Amendment Bill has passed through the Court of Policy, and only awaits its proclamation in the "Official Gazette" to make it become law. The object of this Bill is to give effect to the recommendations of a committee appointed to consider the regulation of the sale of patent and proprietary medicines. Clause 3 makes it obligatory that drugs and poisons shall be dispensed, compounded, and sold only under the direct charge and supervision of a duly registered chemist and druggist. The age at which poisons can be purchased is raised by Clause 4 from twelve to sixteen. Clause 5 repeals the enactment in the Pharmacy and Poisons Ordinance, 1899 (No. 3 of 1899), which enables such medicines to be sold by any person, and in future these can only be sold by a registered chemist and druggist. Clause 6 requires the proportion of alcohol, and of certain other drugs, to be shown on the label of any patent or proprietary medicine, following the practice in the United States and in many other countries. The text of the Bill is given below. The other recommendation of the committee as to imposing a stamp-duty on all patent and proprietary medicines has been given effect to in Section 16 of the Tax Ordinance, 1911 (No. 3 of 1911). The suggested duty on patents on every 24c. package is 8c. duty if formula of preparation is given on label, and 16c. if the formula is not given. Certain additions to Schedule III. of the Principal Ordinance are also to be made separately by notice in the Colonial "Gazette."

A Bill Entitled "An Ordinance to Amend the Pharmacy and Poisons Ordinance, 1899."

Be it enacted by the Governor of British Guiana, with the advice and consent of the Court of Policy thereof, as follows:

1. This Ordinance may be cited as the Pharmacy and Poisons Ordinance, 1899, Amendment Ordinance, 1911, and shall be construed as one with the Pharmacy and Poisons Ordinance, 1899.

2. In this amending Ordinance and in the Principal Ordinance "Patent or Proprietary Medicine" includes any medicine or any preparation that is in any way recommended either on the label of any package thereof or by advertisement as a remedy for any disorder.

3. Sub-section 1 of section nineteen of the Principal Ordinance is hereby repealed, and the following sub-section substituted therefor:

> (1) From and after the date of this Ordinance no person shall sell or keep open shop for retailing, dispensing, or compounding drugs or poisons, including patent or proprietary medicines, unless such shop is under the direct management and supervision of a duly registered chemist and druggist and unless all such drugs and poisons are dispensed, compounded, and sold under the direct charge and supervision of a duly registered chemist and druggist employed therein for that purpose.

4. Section twenty of the Principal Ordinance shall be read and construed as if the word "sixteen" were inserted therein instead of the word "twelve."

5. (1) Sub-head (*a*) (relating to the sale of patent, proprietary, or homœopathic medicines), and

> (2) the word "simple" at the beginning of sub-head (*c*) of sub-clause five of sub-section one of section twenty-five of the Pharmacy and Poisons Ordinance, 1899, are hereby repealed.

6. No patent or proprietary medicine shall be sold unless the box, bottle, vessel, wrapper, or cover in which such medicine is contained is distinctly labelled with the proportion or percentage of alcohol (if any) or of any of the substances (if any) mentioned in Schedules I. and II. of the Principal Ordinance contained in the said medicine.

Mr. C. Edward Wallis, M.R.C.S., L.D.S., in a paper before the British Medical Association, suggests that doctors might obtain the co-operation of the Pharmaceutical Society in minimising the sale of infant-soothers at chemists' shops.

# LEGAL REPORTS.

## Sale of Food and Drugs Acts.

Artificial Camphor in Camphorated Oil.

At Worcester Police Court on August 28, Albert Edward Marshall, chemist and druggist, 59 Broad Street, Worcester, was summoned for selling camphorated oil deficient in camphor. The Town Clerk (Mr. S. Southall) prosecuted, and Mr. W. W. A. Tree represented defendant, who pleaded not guilty. Mr. Southall stated that Inspector Taylor sent a deputy to buy the camphorated oil, and upon the Inspector going into the shop and telling Mr. Marshall that the oil would be submitted to the public analyst, Mr. Marshall said, "Oh, very well, you will find it all right; I made it myself." The defence was a warranty, but Mr. Southall contended that the warranty in this case was not a good one. Defendant produced an invoice dated August 1910, which included the camphor and olive oil used in making the camphorated oil in question. At the head of the invoice it was stated that all the drugs sent out by the wholesale firm, Messrs. E. H. Butler & Son, Leicester, were in accordance with the standard of the British Pharmacopœia. The articles mentioned on the invoice were "Olive oil, camphor liniment, and flowers of camphor." The first two were marked "B.P.," but the flowers of camphor was not so marked. The prosecution submitted that the fact that the letters "B.P." followed the first two and not the last, showed that the one not marked was not intended to be, not being in accordance with the British Pharmacopœia. Assuming that the olive oil and the flowers of camphor were warranted, he maintained that there was no warranty when those two ingredients were mixed to form camphorated oil. Mr. Southall then quoted a law case in proof of his contention that the warranty only applies to articles sold in exactly the same state as they were bought.

After evidence of purchase of sample had been given, Mr. C. C. Duncan, F.I.C., county analyst for Leicestershire, said the sample submitted to him was composed of 15 parts of camphor B.P., 6 parts of artificial camphor, and 79 parts of olive oil. It was not camphorated oil as laid down by the British Pharmacopœia, because it contained 6 parts of artificial camphor, whereas the British Pharmacopœia required all the camphor to be obtained from the camphor-plant (*Cinnamomum Camphora*). His opinion was based upon the fact that the sample examined in a 200-mm. tube in a polariscope rotated the light 16°, whereas camphorated oil of the British Pharmacopœia should show a rotation of 21°.

Mr. Marshall said he had never had any artificial camphor in his shop. He sold out the camphorated oil which he bought last August before the end of April, when he made a further supply himself by mixing the camphor and olive oil purchased at the same time. On cross-examination defendant said that it was not necessary for all the articles on the invoice to be marked "B.P.," the warranty at the top covering all the articles. He maintained that the two articles were sold exactly as he received them, only that he had mixed one with the other in accordance with the directions of the British Pharmacopœia. He mixed many of the preparations he sold in order to save expense. He preferred to buy camphorated oil ready made, because he would have a guarantee, but he could not afford to do so.

Mr. Tree said all that he had to prove was that a warranty was given, and that the article sold to the Inspector was in accordance with the warranty, and in the same state as when he received it. The initials "B.P." could be eliminated from the invoice without affecting the warranty. The only construction to be put upon the warranty was that all the goods were guaranteed to be in accordance with the standard required by the British Pharmacopœia. The prosecution had argued that although the separate ingredients of the camphorated oil were warranted there was no warranty for the finished article when the two parts were put together. He thought that the Bench could not strain the case against the defendant to that extent. If the oil sold contained nothing but the camphor and the olive oil, he maintained that the defendant sold it in the same state as he received it.

Mr. Southall said the reason for that contention was that there would be some doubt as to how the ingredients were mixed. Further, it would appear from the omission of the letters "B.P." on the invoice that the articles were not warranted to be up to the standard of the British Pharmacopœia.

The Chairman announced that the Bench had decided to convict, and defendant would be fined 1*l.*, with 2*l.* 4*s.* 7*d.* costs.

Mr. Tree: I do not know whether you hold that there was a warranty.

The Chairman: We do not consider that the evidence brings the case under Section 25 (the warranty section) of the Act.

# DEED OF ARRANGEMENT.

**Low, John,** 20 and 95 Front Street, Chester-le-Street, Durham, Chemist and Druggist.—Trustee: R. Allen, 24 Grainger Street West, Newcastle-on-Tyne, C.A. Dated, August 22; filed, August 28. Liabilities, 1,216*l.*; estimated net assets, 963*l.* The creditors include: C. R. Harker, Stagg & Morgan, Ltd. (15*l.*); W. Cooper & Nephews, Berkhamsted (19*l.*); W. Glendinning & Sons, Ltd., Newcastle (10*l.*); J. Ismay & Sons, Newcastle (168*l.*); Wilkinson & Simpson, Ltd. (523*l.*).

# GAZETTE.

## The Bankruptcy Acts, 1883 and 1890.

Receiving Order.

Michael, Frederick William, Shaftesbury Avenue and Camberwell Road, bachelor of medicine, etc.

# LIMITED COMPANIES.

## New Companies Registered.

**The letters P.C. mean Private Company within the meaning of the Companies Act, 1907, and R.O., Registered Office.**

Giannetti King & Co., Ltd. (P.C.).—Capital 2,200*l.* Objects: To carry on the business of manufacturing chemists, importers, exporters, merchants, etc. R.O., Spencer House, South Place, London, E.C.

Macdonalds Teeth, Ltd. (P.C.).—Capital 100*l.* Objects: To carry on the business of makers of artificial teeth, eyes, and limbs, boots, corsets, bandages, chairs and stretchers, etc. P. Macdonald is managing director for life. R.O., 8 Fountain Square, Hanley.

E. A. Macdonald, Ltd. (P.C.).—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of makers of artificial teeth, eyes, and limbs, boots, corsets and bandages, etc. P. Macdonald is managing director for life. R.O., 22 Back Piccadilly, Manchester.

Calverts (Hull), Ltd. (P.C.).—Capital 500*l.* Objects: To carry on the business of dealers in drugs, chemicals, essences, perfumery, toilet requisites, patent medicines and proprietary articles, etc., and to adopt an agreement with E. Calvert, 14 Newland Avenue, Hull, merchant.

Angus A. Macdonald, Ltd. (P.C.).—Capital 100*l.* Objects: To carry on the business of makers of artificial teeth, eyes, and limbs, boots, corsets and bandages, etc. P. Macdonald, Glencoe, Edge Lane, Stretford, Manchester, is managing director for life. R.O., 80 Westgate, Wakefield.

Chas. W. Dopson, Ltd.—Capital 2,000*l.*, in 5*s.* shares. Objects: To carry on the business of manufacturing chemists, druggists, drysalters, oil- and colour-men, etc. Minimum cash subscription, 35*s.* C. W. Dopson is the first governing director. R.O., 23 Harrington Street, Rutland Street, London, N.W.

Darnell Acoustic Co., Ltd. (P.C.).—Capital 100*l.* Objects: To carry on the business of manufacturers of and dealers in electrical and other instruments for deafness, medicinal preparations or medical or surgical appliances. Mrs. G. Hincks, Jesmond Dene, St. Margarets, is permanent governing director.

J. & J. Canavan, Ltd. (P.C.).—Registered in Dublin on August 24. Capital 1,000*l.*, in 1*l.* shares. Objects: To acquire the business of chemists and druggists, general

grocers, etc., carried on at Portadown, co. Armagh, as "J. & J. Canavan." J. H. Canavan is the first director. R.O., 2 High Street, Portadown.

Davis & John (Bath) (P.C.).—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of chemists and druggists, etc. The first subscribers are: B. John, 15 Old Bond Street, Bath, chemist; G. J. Long, Woodspring, Bloomfield Avenue, Bath, builder; C. H. Long, Sampford House, Oldfield Road, Bath, builder; and W. F. Long, 3 Northumberland Buildings, Bath, solicitor.

Strongdouvine Pericaud, Ltd.—Capital 20,000*l.* Objects: To carry on the business of manufacturers of cattle and other foods, feeding-stuffs, provender, and medicine for cattle, poultry, etc., and to adopt an agreement between the London Joint Finance and Credit Co., Ltd., and H. Pericaud for the sale and purchase of the rights of the said H. Pericaud in the product known as Strongdouvine Pericaud. R.O., 68-70 Fenchurch Street, E.C.

### Company News.

Nuvité Co., Ltd.—To be voluntarily wound-up. Liquidator, Mr. H. O. Bennett, 29 Castle Meadow, Norwich. Claims to be sent to liquidator on or before September 30.

Companies' Register.—By notice gazetted on August 29 the undermentioned joint-stock companies have been struck off the register at Somerset House, London, W.C.: Anglo-French Vinegar Co., Ltd.; Cheapest Chemists, Ltd.; Kronthal Waters, Ltd.; Norbiton Drug-stores, Ltd.; Sulphur Quarries, Ltd.

## BIRTHS.

Cagney.—At Castle Street, Sligo, on August 15, the wife of Patrick Cagney, of a son.

Jarvie.—At Avondale Place, Kirkintilloch, on August 23, the wife of George Jarvie, pharmacist, of a son.

## MARRIAGES.

Bray—Hunter.—At 8 Lorne Street, Glasgow, by the Rev. John Gunson, James G. Bray, chemist and druggist, Glasgow, to Lena L. Hunter, elder daughter of Mr. William Hunter, Glasgow.

Cheyne—Gibson.—At the Sanctuary Church, Mawnam, Falmouth, on August 28, the Rev. Thomas Kelly Cheyne, D.D., D.Litt., to Elizabeth, daughter of Major John Pattison Gibson, V.D., F.S.A., chemist and druggist, of Hexham.

Copley—Jenkins.—At St. John's Church, Bulawayo, Rhodesia, on July 7, by the Rev. Archdeacon Foster, W. Dawn Copley (President of the Pharmaceutical Society of Rhodesia) to Marie Jenkins, of Cape Town.

Parrott—Wheatley.—At St. Michael and All Angels Church, Bishop's Stortford, on August 16, by the Rev. N. T. Gardner, William Parrott, of Bishop's Stortford, to Kate, fourth daughter of the late Mr. James Wheatley, of Albury, Herts.

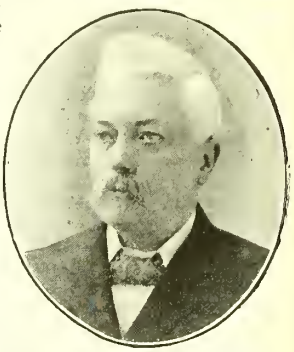
## DEATHS.

Brown.—At 25 Byker Terrace, Walker, Newcastle-on-Tyne, on August 26, Mr. John Brown, chemist and druggist. Mr. Brown passed the Minor in 1869 and was in business at the corner of Church Street, Walker, for over forty years. He served on the old Local Board and took an active interest in the work of the Walker Mechanics' Institute, being on the committee and acting honorary secretary for thirty years. He was also a member of the Walker Lodge of Freemasons. Mr. Brown leaves a widow, two sons, and four daughters.

Darlington.—On July 21, Mr. Thomas Darlington, chemist and druggist, 8 Cook Street, Coventry. Mr. Darlington was in business before the passing of the Pharmacy Act of 1868.

Hilton.—At 14 Morley Street, Whitefield, Lancs, on August 27, Mr. William Hilton, chemist and druggist, Whitefield, aged sixty-eight.

Jones.—At 60 Riggindale Road, Streatham, London, S.W., on August 27, Mr. William Adpar Jones, a director of Messrs. Idris & Co., Ltd., aged sixty-nine. Mr. Adpar Jones, who had been in ill-health for some time, died on Sunday afternoon from heart-failure. He was a native of Cardigan, and was one of the partners of Messrs. Idris & Co. prior to the conversion of the business into a limited-liability company in 1893. He possessed an exceptionally wide knowledge of the mineral water trade. He was well known to many pharmacists, and was a regular attendant at their functions. He was an ex-President of the Mineral-water Trade Protection Society and a member of the Council for many years.



Mr. William Adpar Jones.

Apart from his business affairs he was a warm supporter of the charitable institutions connected with the licensed victuallers, and was also a prominent Freemason, being a member of several lodges. About two years ago Mr. Jones retired from active work in connection with Messrs. Idris & Co., Ltd. His death will be mourned by a wide circle of friends and acquaintances, by whom he was held in the highest respect. The deceased leaves four sons and a daughter. His third son, Stanley, is one of Messrs. Idris's representatives. The funeral took place at Highgate Cemetery on Wednesday, when the Company was represented by Mr. T. H. W. Idris, Mr. E. K. Bishop, Mr. W. T. W. Idris, Messrs. Ashton, Odgers, Squire, Lewis, and others. A large number of beautiful floral tributes were sent by numerous friends of the family.

Lawson.—At 3 Nelson Street, Rotherham, on August 23, Mr. Chas. Edward Lawson, chemist and druggist, aged eighty-one. Mr. Lawson began business in Rawmarsh over fifty years ago, and later opened the first pharmacy in Parkgate, and retired from business in Bridge Street about five years ago. He was formerly a member of the local Board of Guardians, and was churchwarden at Christ Church, Parkgate.

Stow.—At the Hull Royal Infirmary on August 25, as the result of a motor accident, Mr. John Stow, mineral-water manufacturer, Hessle, aged sixty. Mr. Stow was cycling to Kilnsea, in Holderness, where his wife was spending a holiday, when in turning out of the Anlaby Road he was struck broadside by a motor-car which was driven by Mrs. Arnold Reckitt (daughter-in-law of Sir James Reckitt, Bart.). Mr. Stow was picked up bleeding and unconscious from beneath the car, and was conveyed in a taxicab to the Royal Infirmary, where he died shortly afterwards. The deceased established a successful business at Hessle thirty-five years ago. He was an enthusiastic politician, and for many years took an active part in public affairs. Mr. Stow was a manufacturer of flavouring essences as used by aërated-water manufacturers, and had a very extensive connection over England and Scotland. At one time he travelled for Messrs. Wm. Hay, Ltd., of Hull.

## BUSINESS CHANGES.

**Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.**

Mr. G. D. Cleaver, chemist and druggist, has opened a pharmacy in Lyme Street, Axminster.

Mr. S. Smith, chemist and druggist, Swindon, has recently purchased the business of F. G. Abel, chemist, High Street, Tonbridge.

Mr. J. A. Coltart, chemist and druggist, has purchased the Fitzgerald Pharmacy, Hereford Street East, Christchurch, from Mr. A. V. B. Bishop.

THE SYROLIT, LTD., have moved into new offices at Norwich House, Southampton Street, High Holborn, London, W.C.

MR. E. RUTTER, chemist and druggist, has taken over the pharmacy at 76 Church Road, Manor Park, Essex. The premises have been remodelled.

MR. E. ERNEST JACKSON, lozenge manufacturer, Crediton, has removed his London depôt from Kingsland Road to more commodious premises at Plantain Place, Crosby Road, Borough, S.E.

MR. WALTER BARLOW, chemist and druggist, Pocklington, Yorks, has purchased the business of the late Mr. George Brigham, Market Place, Pocklington. The valuation, on behalf of both Mrs. Brigham and Mr. Barlow, was conducted by Messrs. Brett & Co., of Leicester.

## TRADE NOTES.

CONFECTIONERS' EXHIBITION.—Messrs. Wm. Gardner & Sons, Ltd., engineers, Gloucester, are showing a selection of their patent "Rapid" sifters and mixers at the Confectioners' and Bakers' Exhibition, which opens at the Royal Agricultural Hall, Islington, London, N., on September 2.

OPTICAL BENCH.—Mr. John Baird, manufacturing optician, 68 and 70 Mitchell Street, Glasgow, is advertising in this issue a very handy optical bench. It is made of solid mahogany, folds, and contains all the necessary apparatus for the Spectacle-makers' and British Optical Association's examinations.

WRIGHT'S VIEW COMPETITION.—Chemists are reminded that this competition in connection with Wright's Coal-tar Soap is now being extensively advertised to the public, and that the co-operation of retailers is desirable to ensure the success of the scheme. The prizes include three, of 10*l.*, 5*l.*, and 2*l.*, to the chemists who introduce the prize-winners. Messrs. Wright, Layman & Umney, Ltd., 44 to 50 Southwark Street, London, S.E., advertise the fact in this issue. They will send particulars direct on application by those who desire more information.

## PERSONALITIES.

**Notes for this section sent to the Editor should be authenticated, and must not be in the nature of advertisements.**

MR. AND MRS. J. C. CHRISTIE, Fordsburg, Johannesburg, arrived in London this week on their way to Scotland.

MR. RYAN, President of Parke, Davis & Co., Detroit, returned to the United States on August 30 by the *Olympic* from Southampton.

MR. R. F. IDENDEN, chemist and druggist, 75 High Street, Barnstaple, who has been seriously ill, is recovering and hopes to resume business soon.

MR. ERNEST L. RALLING, of Johannesburg, Transvaal, who has been on a visit to this country, returned to South Africa by the *Balmoral Castle* on August 26.

MR. GEORGE LUNAN, F.C.S., Edinburgh, is one of the Scottish pharmacists on the British Pharmacopœia Committee of Reference in Pharmacy, and his name should have been mentioned in our article last week instead of Mr. J. F. Tocher.

MR. W. C. ANDERSON, Chairman of the Independent Labour Party, whose engagement to Miss MacArthur, another Labour leader, is announced, spent about ten years in pharmacy, latterly as an assistant to the late Mr. John Macmillan, Glasgow.

MASTER NORMAN MILLARD, son of Mr. E. J. Millard, F.C.S., of Messrs. C. J. Hewlett & Son, Ltd., London, has passed the Senior Oxford Local examination with honours in the subjects that are equivalent to the Matriculation examination of the London University. He is only fifteen.

MR. R. BUTTERS, of Johannesburg, the *doyen* of Transvaal pharmacy, has arrived in England on a six-months' holiday trip. He travelled by the German West Coast route, the journey occupying forty-three days. Letters for Mr. Butters may be addressed to the office of THE CHEMIST AND DRUGGIST.

SIR R. PATRICK WRIGHT, who was recently appointed Agricultural Adviser to the Scottish Education Department, is to be succeeded in his former office of Principal and Professor of the West of Scotland Agricultural College by Mr. W. G. R. Paterson, B.Sc., formerly senior assistant at the same institution, but for the last three years agricultural lecturer for the County Council of Dumfriesshire.

MR. C. J. REID, who has been Hon. Treasurer to the Bournemouth Pharmaceutical Association during the past five years, has been presented by the members with a writing-table and chair on the occasion of his marriage. Mr. F. E. Bilson has recently been the recipient of a silver salver and Mr. J. A. Haynes a silver rose-bowl from some of their pharmaceutical colleagues to commemorate the marriage of the former and silver wedding of the latter.

A CORRESPONDENT, supplementing remarks in "The Nation" regarding Clare, the Northamptonshire poet, says:

"It was pointed out to me by Mr. George Claridge Druce, a Northamptonshire man, and probably our best living student of the British flora, that Clare's descriptions of scenery all take their colour from the wild-flowers which he selects, and that they are all truly and accurately described. Mr. Druce, in fact, lately went through 'Clare's country' with the special object of identifying his flora, and was delighted and surprised to find the truth with which he had seen and depicted the flowers of his native county. Mr. Druce had considerable notes on the subject, which he intended to publish."

ONE day last week an unknown artist pushed a well-executed wash-drawing of Mr. Edwin Pottage through the letter-box of Mr. Pottage's pharmacy, 104 Picton Road, Wavertree, Liverpool. The drawing, which we reproduce, is an excellent likeness. Mr. Pottage was born at Beverley and served his time with his father, who is retired from business and still lives there. He studied at Luff & Woodlands, and qualified in 1883, having had London experience before studying. Next Mr. Pottage put in five years with the late J. J. Leigh, at Bishop Auckland, after which he managed his uncle's homœopathic business in Glasgow (the late J. C. Pottage, of Edinburgh). He has been over twenty years in business at Wavertree, and was intimately acquainted with the late Maybrick family, who dealt at his pharmacy up to the time of the murder trial. Mr. Pottage represented his ward on the Wavertree District Council until the incorporation of the district with the City of Liverpool, when as an independent body the District Council ceased to exist.

MESSRS. BURROUGHS WELLCOME & CO. had a nice exhibit of first-aid cases, Kepler malt preparations, and photographic chemicals at the Festival of Empire Exhibition, Crystal Palace. They have been awarded two Grand Prizes and a Gold Medal for it.

# SCIENTIFIC PROGRESS.

Temperatures under this heading are on the Centigrade scale.

**The Synthesis of Berberine.** — Pictet and Gams ("Chemiker Zeitung," 1911, 99, 907) have achieved the synthesis of the alkaloid berberine by condensing homopiperonylamine with homoveratryl chloride. The condensation product is treated in boiling xylene solution with phosphorus pentoxide, by which it is converted into a dihydroquinoline base. This is reduced by tin and hydrochloric acid to veratrylnorhydrohydrastinine. The hydrochloride of this base is heated with methylal, when tetrahydroberberine results. This is oxidised with bromine, and thus converted into berberine hydrobromide.

**African Olive Oil.**— A good deal of genuine olive oil is produced in parts of Northern Africa, the general characters of which are in agreement with those of olive oil produced in other countries. Occasionally, however, this oil gives a reaction which is not yielded by other olive oils, and which might, if not understood, lead to confusion. With Badouin's reagent (furfural and hydrochloric acid) a red colour is developed, which might give rise to the suspicion that sesame oil was present, but it rapidly alters, and becomes almost black, so that in experienced hands no mistake is likely to occur.

**A New Harmless Hair-dye.**— Wolffenstein and Colman ("Pharm. Post," 1911, 549) have prepared a new hair-dye, which is claimed to be quite harmless. Para-phenylenediamine is treated with hydrogen dioxide, and is thus converted into a base with a high molecular formula, $C_{18}H_{18}N_6+6H_2O$. By reduction this is converted into its corresponding leuco-compound. A compound is formed by the reduction of para-toluylene-diamine by means of sulphurous acid. A mixture of the base with sulphite has been put on the market under the name "primal." It is absorbed by the fibres of the hair, and darkens by aid of the oxygen in the atmosphere, or by means of a mild oxidising-agent. By varying the relative quantities different shades can be obtained.

**A New Tuberculosis Remedy.**— A patent has been granted to R. Berendes and F. Bayer & Co. for the preparation of the phenyl ester of α-iodoisovalerianic acid and other esters of the same general constitution. Two hundred grams of a α-bromisovaleryl chloride is dissolved in 200 grams of benzene, and 100 parts of pyridine added, and then 124 grams of guaiacol. After a time α-bromisovaleryl-guaiacol crystallises out, and forms prisms melting at 69°-70°. Two hundred and eighty-seven grams of this ester is mixed with 300 grams of alcohol, and heated with 175 grams of potassium iodide for four hours to 80°. The resulting ester, $(CH_3)_2CH.CHI.CO_2.C_6H_4.OCH_3$, is recrystallised from alcohol, and then melts at 76°-79°. It is soluble in hot alcohol, benzene, and chloroform. It is non-toxic, tasteless, and easily absorbed. It is recommended for tubercular complaints in doses of 1 gram.

**Determination of Piperazine in Effervescent Salts.**— Mr. O. Willgerodt ("Soc. Chem. Ind. of Victoria," May 30), in a paper on the quantitative determination of piperazine in effervescent salts, recommends extraction with chloroform. From 5 to 10 grams of effervescent salt is dissolved in 25 c.c. of water and made strongly alkaline with caustic soda. The solution is then poured on to a layer of chloroform contained in a Katz extraction-apparatus (for solvents heavier than water), and percolated with chloroform. For the extraction a round flask of 500 c.c. capacity is half filled with a saturated solution of picric acid in chloroform, and the latter kept briskly boiling on a water-bath. The extracted piperazine is thus precipitated as fast as it is extracted, and its volatilisation prevented. The extraction can be conveniently finished in six or seven hours.

**Kino.**— J. L. Simonsen ("J.C.S." 1911, p. 1530) has reinvestigated kino, and confirms E. White in being unable to isolate any kinoin from this product. Numerous attempts to purify crude kino were unsuccessful, but kino-methyl ether can readily be prepared and purified by precipitation from alcohol. Analysis gives figures for kino-methyl ether closely corresponding to the formula $C_{15}H_{11}O_3(OCH_3)_3$, but cryoscopic determinations indicate a molecular weight at least double this value. On oxidising kino-methyl ether with potassium permanganate in the cold, veratric acid is the only oxidation product. On fusion with potassium hydroxide no phloroglucinol is yielded as stated by Hlasiwetz. When kino or its phlobaphene, kino red, is oxidised with dilute nitric acid (10 per cent.) in the cold, ammonium quadroxalate is the main oxidation product. The author considers the formation of this salt remarkable and a proof of the extraordinary reducing power of kino.


Postal Address:
C. & D. INFORMATION DEPARTMENT, 42 Cannon Street, London, E.C.
Telegraphic Address: "CHEMICUS LONDON."
Telephone No.: BANK 852 (two lines).

## INFORMATION WANTED.

**We would be obliged if any reader would inform us by post-card or telephone who are the makers or agents of the articles mentioned in the following inquiries received since our last issue:**

141/5. "Lanee" perfumes.
145/32. "Anguifragi" tablets.
140/19. "Muskhan": makers.
141/8. Ridgeway's sanitary-fluid.
140/61. Sunflower-seed oil: supply.
143/21. Fox's razors: where obtainable.
141/180. "Vita" vacuum flask: makers.
140/16. "Ridgeway's Disinfecting-fluid."
141/18. "Helios" vacuum flask: makers.
144/59. "Pullyup" wrist-strap (No. 531,613).
140/53. "Melissa Balm": makers or agents.
142/24. "Zenento" for drunkenness: supply.
141/8. "Akinetos" acid-proof rubber sheeting.
145/3. "Apt" nail-clipper (marked "L. R. M. F. G. Co.").
144/33. Machine for rolling flat cakes of dental modelling-wax.
140/41. Neodora Co., late of Fleet Street, E.C.: present address.
137/53. "Thistle" brand powdered caustic soda: manufacturers.
139/51. Good Health Alliance, makers of "Kinlis Herb Tea": present address.

## INFORMATION SUPPLIED.

**During the past week we have answered inquiries as to where the following articles can be obtained, and in many cases we have given the actual makers. The information will be repeated to any other inquirers who send to this Department a stamped and addressed envelope for the purpose.**

"Acorn" corn-cure (143/69).
Antiformin (143/12).
Black China tea ("W. H. & W." brand) (140/66).
Boracic acid (Johannesburg inquiry) (135/165).
Boric acid socks (142/41).
British Appliance Mfg. Co. (address) (143/24).
Camphylene disinfectants (143/16).
Carbon bisulphide substitute (British manufacturers (142/6).
Chamberlain's cough-remedy (143/18).
Cocoanut oil (143/1).
Collapsible tubes (South African inquiry) (135/167).
Colon tubes (142/26).
Corks (Transvaal inquiry) (135/171).
Fahnestock's vermifuge (143/181).
First-aid outfits (Johannesburg inquiry) (135/173).
Fishing-rods and materials (139/50).
Gellé Frères (address) (141/20).
Glass eye baths (South African inquiry) (135/16).
Gluten flour (143/71).
Glycobenphene (143/57).
Haydock's pills (139/47).
Johnson's baby-powders (143/32).
Kilmer's swamp-root (144/23).
Laxans (136/5).
Linseed importers (143/19).
Macaura's "Pulsocon" (143/2).
Medicine droppers (Transvaal inquiry) (135/161).
Medicine measures (South African inquiry) (135/160).
Minerolin (139/29).
Mustard-plasters (South African inquiry) (135/162).
Ointment-bottles (Transvaal inquiry) (135/169).
Oleic acid capsules in phials (140/48).
Ozone 1*d.* disinfectants (140/72).
Parquetry (143/51).
"Phagocytin" (138/55).
Picric acid (Transvaal inquiry) (135/166).
"Pural" food (139/65).
Respirators (metal) (141/27).
Richter's "Sarsaparillian" (143/23).
Safety-pins (Transvaal inquiry) (135/163).
Sponges (Johannesburg inquiry) (135/164).
Tannothymal (140/53).
Teufel's suspenders (140/47).
Tinfoil caps (Johannesburg inquiry) (135/170).
Vulcanite mounts for sprays (144/13).

# OBSERVATIONS & REFLECTIONS.

By Xrayser II.

### "Long Overdue."

Is the publication of the new B.P. in sight at last? In spite of your by no means unduly optimistic forecast for 1912 as the date of issue, we have to bear in mind the recent declaration of the President of the General Medical Council that some years must elapse before the B.P. Committee can digest the reports and recommendations now before them. To the plain pharmacist it does appear that there has been an unconscionable time in arriving even at this stage; and if there is to be still further delay, I can only say that it is high time some other tribunal had the business in hand. There have been three Pharmacopœias since 1868, and most other civilised countries treat themselves to one every ten years; why should not this country keep officially abreast of the times? That we are well enough catered for unofficially is proved by the rapid re-issue of various supplementary publications such as "Squire" and "Martindale," and the fact that the authors of these works can find the time and means of keeping their volumes up to date would seem to prove that a more frequent issue of the national Pharmacopœia ought certainly not to be impossible.

### The Report

of the Committee of Reference in Pharmacy which was summarised in the last issue of the *C. & D.* represents an enormous amount of work, and that work, so far as I can judge from a necessarily cursory inspection, has been carefully done. Throughout there is ample evidence of the hand of the practical pharmacist as well as that of the laboratory chemist, and there is little to be seen of the "armchair" specialist. I am especially glad that the Committee have declined to adopt the percentages and spirit strengths provided for in the Brussels International Convention. It was obviously a mistake to require tinctures to be made with practically one strength of spirit only—namely, 70 per cent.—and it is surprising that this error was not detected before it was too late. Similarly the Committee adhere to the British and American system of percentages; tinctures are to be made in w/v instead of by the Continental plan of w/w, and thus the tinctures will only conform approximately to the international standard. This deviation may raise difficulties, seeing Sir Donald MacAlister was himself a party to the Convention; but the plan suggested by the Committee is the only one that is suited to British conditions.

### Hiera Picra,

as your article shows clearly, is, and always was, essentially an aloetic purge, but it is not quite correct to say that all the hieras contained aloes, for there was none in the Hiera Pachii or the Hiera Tralliani, the latter of which is the Hiera Diacolocynthidis of the first London Pharmacopœia. Neither of these, however, was hiera picra. It may be confidently affirmed that no official hiera picra ever had cantharides as one of its ingredients. Mr. Power asks when this electuary first took the form of a pill. The answer is that officially, and without admixture with other ingredients, it never did so. Culpeper says that it is best given in this form, but he is simply expressing a pious opinion. Hiera picra was an ingredient in Pilulæ de Agarico, adopted by the London College from Mesue; and also in Pilulæ de Hiera cum Agarico, consisting of two parts of aloes to one part of each of the other two contituents, with honey of roses for an excipient, which was afterwards omitted from the Pharmacopœia as needless. Mesue's formula, somewhat modified, was retained until the appearance of the P.L. of 1746. Neither in that nor in any subsequent edition is there any pill containing hiera picra, Pilulæ Cochiæ majores, of which it had been the principal ingredient, being then dropped. Pilulæ Rufi was originally a hiera invented by Rufus of Ephesus, the pills made from which were, says Wootton, the Pilulæ Pestilentiales of Avicenna and the Pilulæ Communes of the Edinburgh Pharmacopœia. The third edition of that work (1735) has, however, two distinct Pilulæ communes, one of which is attributed to Rufus, the other to Avicenna. The essential fact is that all these various preparations were aloetic purges; they were prescribed largely for certain female disorders, and they still have a considerable vogue among women, but this is only because aloes itself is supposed to be particularly indicated in cases of "irregularity." If it is an abortefacient, so is hiera picra, but not otherwise.

### The Locum Tenens

is well to the fore just now, and from the specimens I see in friends' shops I gather that he has greatly improved since I first made his acquaintance. For several years he was the burden of my life, and I was weary to bear him. Well do I remember the kind of person who was wont to apply for temporary work, and the fear and trembling with which I recommended him. Not having the pen of a "John Bull" paragraphist (see *C. & D.*, August 26, index folio 343), I dare not attempt his portrait. He had frequently been in business for himself, had been unfortunate, and was—O word of fear!—a "total abstainer." He had not, if truth must be told, that "pleasing appearance" which the proprietor of Goulard's Lotion used to assure us is "the first letter of recommendation," but "references" he usually had in great number, and of a highly laudatory character. Their date, however, was sometimes almost as ancient as his coat. His manner was usually both eager and deprecatory, unless he was Irish, in which case it recalled that of Captain Costigan, and was irresistible. How I shrank from my next call upon the friend whom I had induced to engage him! How I avoided all inquiry as to the state of his tinctures and S.V.R.! In brief, how different was my *bête noire* of forty years ago from the spruce, businesslike, up-to-date locum of to-day!

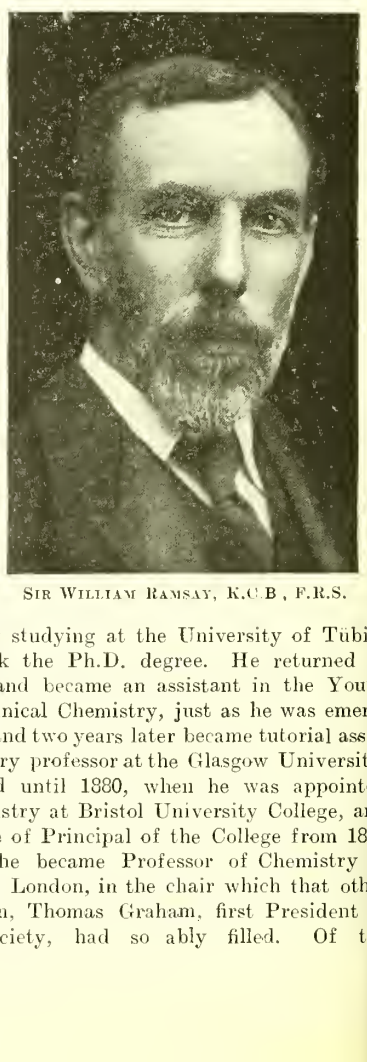
### A Good Deal of Nonsense

has, in my opinion, been talked about dispensers under the Insurance Bill. I am inclined to think, with your correspondent "An Apothecary's Assistant," that any intelligent person who has had three years' experience as dispenser to a doctor will be quite competent to undertake, under a pharmacist's supervision, such duties as will fall to him under the Bill, and it would certainly be a hardship, if not a positive injustice, to deprive him of his occupation. I have had some experience as a dispenser to a doctor in a good practice, and am well acquainted with the sort of prescriptions written by doctors whose practice is chiefly among the classes that will be served by the Bill; the latter did not vary very much from those I had to deal with in the former case, and I do not remember a single instance in which such a man as I am speaking of would have been in any serious difficulty with either. It is not likely that the character of prescribing in general practice will be very different under the new conditions from what it has been in the past, and the fact that the dispenser will be employed by a pharmacist is a sufficient safeguard. Your correspondent regards the subordination of the dispenser to the pharmacist as a hardship, and almost an insult; but it is nothing of the kind. It is quite possible that the employé may have had more experience of a certain kind of dispensing than the pharmacist who employs him, but it is not likely that he will be as completely educated in the principles of the art, or have so thorough a knowledge of drugs and pharmaceutical processes. The mere empiric is always liable to be confronted by a difficulty for which his experience has not prepared him, and it is in such cases that he needs an expert at his elbow. He may, of course, by an accident be an expert himself, but the class to which he belongs has no legal status as such. Looking at the matter dispassionately, the compromise that has been arrived at seems to me fair to all parties.

# Editorial Articles.

## Education, Elements, and Energy.

The meeting of the British Association for the Advancement of Science, being held this year at Portsmouth, is presided over by that versatile scientist, Sir William Ramsay, who attained this most distinguished position in British Science before his fifty-eighth birthday. Sir William has had a notable career as a chemist and is one of the best known men of our day. He was educated at the Glasgow Academy, then went through the Science course at the University there, subsequently studying at the University of Tübingen, where he took the Ph.D. degree. He returned to Glasgow in 1872, and became an assistant in the Young Laboratory of Technical Chemistry, just as he was emerging from his teens, and two years later became tutorial assistant to the chemistry professor at the Glasgow University. There he remained until 1880, when he was appointed Professor of Chemistry at Bristol University College, and also filled the office of Principal of the College from 1881 until 1887, when he became Professor of Chemistry at University College, London, in the chair which that other famous Glaswegian, Thomas Graham, first President of the Chemical Society, had so ably filled. Of the



Sir William Ramsay, K.C.B., F.R.S.

Chemical Society Sir William Ramsay became a Fellow in 1873, and President in 1907-9. He has also been President of the Society of Chemical Industry, and has been honoured by the leading learned societies and universities of the world. He had done much research in chemical and physical subjects before he was struck with Lord Rayleigh's question in "Nature": Why is nitrogen from the air heavier than nitrogen isolated from chemical compounds? This resulted in 1894 in the isolation by Lord Rayleigh and him of argon from the atmosphere. Subsequently Sir William discovered neon, crypton, and xenon in the atmosphere, and helium in certain minerals. The last-named element made him familiar with those manifestations of force which later became known as radioactivity, and he has done some of the best work on the properties of radium: in fact, Sir William Ramsay has made the chemical department of University College one of those rare schools of science which attract students and workers. He is a splendid teacher, an encouraging professor, and a most suggestive co-worker. As an education authority he was engaged by the Government of India to advise in regard to scientific education there, and in recognition of his invaluable services in that respect he was in 1902 created a Knight Commander of the Bath, a distinction and honour which is usually held by one living chemist only—Sir Edward Frankland was the last before him. Since then he has been awarded the Nobel prize for his work in chemistry, and many academic and other honours have been bestowed upon him. He is an accomplished linguist, and has addressed scientific audiences in France, Germany, and Italy in their own languages.

The annual meetings of the British Association begin on a Wednesday evening with an address by the President, who generally chooses a subject in which he has specialised. Sir William Ramsay addressed a large audience in the Town Hall, Portsmouth, on Wednesday evening, and his discourse, like those of his predecessors, forms a veritable intellectual feast, but is distinctive in introducing not one, but three main themes—Education, Chemical Elements, and Sources of Energy. After outlining the origin of the Association and of other scientific bodies, Sir William said in regard to education:

> In England we have made technical edueation a local, not an Imperial, question; instead of half a dozen first-rate institutions of University rank, we have a hundred, in whieh the institutions are necessarily understaffed, in whieh the staffs are mostly overworked and underpaid; and the training given is that not for eaptains of industry, but for workmen and foremen. "Efficient eaptains eannot be replaeed by a large number of fairly good corporals." Moreover, to induce scholars to enter these institutions, they are bribed by scholarships, a form of pauperisation praetieally unknown in every eountry but our own; and to erown the edifiee, we test results by examinations of a kind not adapted to gauge originality and character (if, indeed, these ean ever be tested by examination), instead of, as on the Continent and in Ameriea, trusting the teachers to form an honest estimate of the capaeity and ability of each student, and awarding honours aecordingly.
>
> The remedy lies in our own hands. Let me suggest that we exact from all gainers of University scholarships an undertaking that, if and when eircumstanees permit, they will repay the sum which they have received as a scholarship, bursary, or fellowship. It would then be possible for an insurance company to advanee a sum representing the eapital value—viz., 7,464,931*l.*—of the seholarships, reserving, say, 20 per cent. for non-payment, the result of mishap or death. In this way a sum of over six million pounds, of which the interest is now expended on scholarships, would be available for University purposes. This is about one-fourth of the sum of twenty-four millions stated by Sir Norman Lockyer at the Southport meeting as neeessary to place our University education on a satisfaetory basis. A large part of the income of this sum should be spent in inereasing the emoluments of the chairs; for, unless the ineome of a professor is made in some degree commensurate with the earnings of a professional man who has succeeded in his profession, it is idle to suppose that the best brains will be attracted to the teaching profession. And it follows that unless the teachers occupy the first rank, the pupils will not be stimulated as they ought to be.
>
> Again, having made the profession of a teacher so lucrative as to tempt the best intellects in the country to enter it, it is clear that such men are alone capable of testing their pupils. The modern system of "external examinations," known only in this country, and answerable for much of its lethargy, would disappear; schools of thought would arise in all subjects, and the intellectual as well as the industrial prosperity of our nation would be assured. As things are, can we wonder that as a nation we are not scientific?

In spite of the remarkable progress of science and its applications, the President thought that there never has been a time when missionary effort was more needed than now.

The above strenuous statement will no doubt be the subject of serious controversy, for the splendid schools of Manchester, Leeds, and Bradford illustrate the fact that real technological instruction in any particular industry is only possible in its commercial centre, and that it is immaterial whether the teaching staff be under the government of a University or local authority.

The President next reviewed ancient and modern views regarding chemical elements, also tackling the problem of reconciling the disturbing factor in the periodic system introduced by the discovery of the radioactive elements. Early in the nineteenth century the old idea of the unity nature of matter was held to be highly probable. Prout's law, that atomic weights are multiples of some common factor (hydrogen) or factors, gains support from the fact that of the atomic weights accepted in 1911 for eighty-one elements, no fewer than forty-three have values assigned to them within one-tenth of a unit above or below an integral number. The probability of such a condition being fortuitous is twenty-thousand million to one. Assuming that the elements of the rare earths (although it is impossible to arrange the fourteen known metals in successive spaces) fill the seventeen spaces in the periodic table between lanthanum and tantalum, the outstanding gaps number eleven. But research on radioactive substances has led to the indication of the existence of twenty-six elements hitherto unknown. To what place can they be assigned? Radium is an undoubted element, but it lacks stability, formerly believed to be an essential characteristic of an element. If the number of electrons lost by disintegrating elements were known, the mystery of the irregularities of the periodic table would in a great measure be cleared up and deviations from Prout's law be accounted for. Of the twenty-six elements derived by disintegration of uranium, thorium, and actinium, ten, formed by emission of electrons alone, may be regarded as allotropes or pseudo-elements, leaving sixteen for which gaps would appear to be available on the periodic table. It would be a futile mistake, Sir William Ramsay rightly says, to regard the existence of such elements as irreconcilable with the periodic arrangement which has rendered to systematic chemistry such signal service in the past.

The last portion of the address treated of radiant energy and the conservation of coal-supplies. Thus: "Suppose that the energy in a ton of radium could be utilised in thirty years, instead of being evolved at its invariable slow rate of 1,760 years for half-disintegration, it would suffice to propel a ship of 15,000 tons, with engines of 15,000 horse-power, at the rate of fifteen knots an hour, for thirty years—practically the lifetime of the ship. To do this actually requires a million and a-half tons of coal." However, Sir William says it can be safely affirmed that the production of radium will never surpass half an ounce a year,

but if "the elements which we have been used to consider as permanent are capable of changing with evolution of energy; if some form of catalyser could be discovered which would usefully increase their almost inconceivably slow rate of change, then it is not too much to say that the whole future of our race would be altered." This question of the coal-supply was not the least interesting part of the address. The coal-fields are being exhausted, and with the approach of that exhaustion and the consequent rise in the cost of fuel, famine and misery are to be feared in the near future. A committee of the British Science Guild, which has for some time been investigating the available sources of energy, has reached the conclusion that there is no practicable substitute for coal as a source of energy, and that it is to the more economical use of coal that we must look in order that our life as a nation may be prolonged. The economic conversion of energy should be aimed at, and it is not unthinkable that a method might be devised which would enable us to convert the energy of coal directly into electrical energy. Like Sir William Crookes in his address on the world's wheat-supply, Sir William Ramsay looks ahead, and by stating and facing the problem stimulates thinkers and inventors to counteract the disasters which seem unavoidable if not averted in good time.

## Opium.

It is a curious and somewhat startling fact that, in spite of the efforts that are being made by various Governments to prevent the sale of opium and its products other than for medicinal purposes, the consumption continues to steadily increase. This is especially true of the United States, which, next to China, consumes more opium than any other country, and it is estimated that a large percentage of it is used either by persons who have acquired the drug-habit or to a minor degree for smoking-purposes. This statement is easily proved by the fact that the total imports into the United States (according to official figures) for the fiscal year ending June 30, 1911, have grown to 629,842 lb., valued at $2,208,000, as compared with 449,239 lb., valued at $1,622,000, in the previous fiscal year. This is an extraordinary increase, and shows that the crusade against the use of narcotic drugs has so far yielded little result. The bulk of these imports are, of course, Turkey and Persian opium, and as the duty is $1.50 per lb., a handsome revenue is obtained.

This year, as is common knowledge, the price of Turkey opium since the season opened in June has shown a rapid advance in all markets, as is proved by the following figures, which represent a few of the transactions in round lots for shipment from Smyrna and Constantinople on c.i.f. terms:

| | Paid | Test |
|---|---|---|
| June 17 ... ... | 15*s.* 3*d.* ... ... | 11½ per cent. |
| ,, 27 ... ... | 17*s.* 6*d.* ... ... | ,, |
| July 7 ... ... | 21*s.* 3*d.* ... ... | 11¾ per cent. |
| ,, 19 ... ... | 21*s.* 6*d.* ... ... | ,, |
| ,, 26 ... ... | 22*s.* 6*d.* ... ... | ,, |

The explanations for the advance have already been given in this journal, but several fresh features have come to light which deserve notice. They chiefly concern the American market, where the price recently touched $8 per lb. (afterwards receding to $7.75), a price which is said to be the highest since 1880, at which time opium was admitted free of duty. This sensational advance gave rise to a ridiculous scare in New York that an attempt was being made to "corner" the opium-market. This led the "New York Commercial" to investigate the matter, and they found that some quarters are much exercised by the fact that one firm (Messrs. McKesson & Robbins) have a preponderance of holdings, but that the idea of working a "corner" is absurd. Under normal conditions Messrs. McKesson & Robbins always hold large stocks of opium, and this season, when it was believed there was going to be a shortage, they had the courage of their opinions to buy early and moderately. This is best told in their own words:

"We have never thought of attempting to corner the Turkish opium-market," said Mr. Donald McKesson. "In the first place, such an attempt would be considered illegal under a strict interpretation of the Federal law relating to combinations and conspiracies in restraint of trade; and, in the second place, it probably would prove as disastrous as the only other attempt made to do so away back in the 'seventies.' The explanation of the recent sharp advance in the price of crude Turkish opium, which alone is considered desirable in the drug-trade, lies in the expected great shortage in this year's crop in Turkey, which has suffered noteworthy deterioration from drought, and in the unexpected heavy purchases of this opium by Japan, which has reduced still further the indicated available world's supply to meagre proportions. We contracted for what we deemed a moderate quantity of crude Turkish opium when we first believed there would be a shortage in this year's crop, and we have more than all other importers, but we are selling this opium only at market prices. We are governed in fixing our price by that existing in the primary markets, and we are willing to sell every day at the figures decided upon in these markets, *plus* the cost of importation and handling in this market."

The stock of opium in the New York market is comparatively large, the amount in bond on July 31 being 54,000 lb. (say 360 cases), as against 4,600 lb. (30 cases) in July last year; while it is estimated that, taking the United States throughout, the stock is from 1,200 to 1,400 cases, this including opium and its equivalent derivatives: otherwise it is difficult to account for the Government import figures.

As is usual when prices show a sensational advance, the demand is curtailed considerably, and about a fortnight ago the Smyrna market declined about 9*d.* to 1*s.* per lb. in the absence of support, and even at the reduction buyers have held aloof. The opinion, however, is held that when buyers appear again prices will improve, as the bulk of Smyrna and Interior speculators, who have had a profitable season, can afford to hold out.

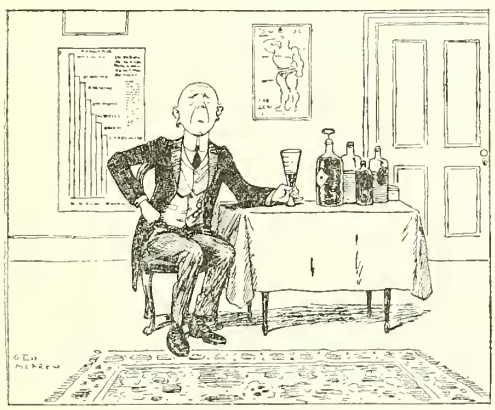
### Liquorice-juice.

The recent communications by Mr. E. J. Parry on the adulteration of liquorice-juice which have appeared in this journal, and the articles by Erikksen and others on the Continent, are having considerable influence on the liquorice-trade, especially that portion of it which has hitherto been in an unsatisfactory condition. At one port the Customs authorities have demanded a duty on imported juices containing added sugar, and samples are now being taken by local authorities who administer the Sale of Food and Drugs Acts, with a view to collecting data; but it is not probable that prosecutions will be instituted until public analysts are quite sure of their ground. In the meantime the addition of sugar compounds is diminishing, and in several quarters starch is being added instead. The principal starches used are maize, rice, and potato. To detect these the insoluble portion of the juice should be carefully washed with water, then with dilute ammonia, and the characters of the starch examined microscopically. It is impossible to confuse most starches with natural liquorice-starch.

### Cheap Tooth-brushes

should be in demand if the recommendations of Mr. Herbert Smale and Dr. D. W. Carmalt Jones are taken seriously by the inhabitants of these isles. In a paper

before the Odontology Section of the British Medical Association, these observers state that a tooth-brush becomes aseptic after once using, each hair becoming an inoculation-needle, so that the person using it may be vaccinated with such germs that flourish upon it. This, it was suggested, might be the origin of pyorrhœa alveolaris, with its attendant sequelæ of anæmia, gastritis, and arthritis. Tooth powders and pastes as usually employed do not render the tooth-brush aseptic, 1 in 20 of carbolic acid not being an effectual germicide. All tooth-brushes, they say, should be boiled for five minutes before and after use. The authors go on to suggest that a new tooth-brush could be used each day, penny ones sold at penny bazaars being good enough for the purpose. Trikresol (1 per cent.) should be used for rinsing the brush, which should be allowed to stand, when not in use, in 10 per cent. formalin solution. The use of penny tooth-brushes would, we think, introduce other elements of danger. Even at one penny a day it would be difficult to convince a customer that he must spend thirty shillings a year on tooth-brushes, when experience with ordinary brushes teaches him that the idea is fantastic in the extreme. The question of using pieces of frayed wood as tooth-brushes has also been revived; but although the use of twigs is pretty general in some countries, there is no doubt that while tooth-brushes are obtainable ordinary people will use them for preference.



## The World's Workers.

By special permission of the proprietors of "Punch" we reproduce this sketch by Mr. Geo. Morrow, which is the fourth of his series of the World's Workers, and represents "an enthusiastic member of the Pharmaceutical Society testing the properties of a new brain-food." The show-card behind this peculiar "Square" man is of "Bul-jo, the ideal food," and the placard is a travesty of an analytical chart, with indecipherable wording.

## The Latest.

At the Holborn end of Furnival Street, London, during the dinner-hour one day this week stood a young man with easel and blackboard, a small crowd round them. The blackboard had a well-displayed chalked notice on it to this effect:

SECRETS OF PATENT MEDICINES: ANALYSES FOR THE BRITISH MEDICAL ASSOCIATION. 1*d.*

Then followed a list of medicines with the explanatory note "21 in all." The man flourished a well-worn copy of "Secret Remedies," and told the crowd what he was there for—to sell for a penny a quarto sheet containing excerpts from the book regarding the following proprietary articles: Wincarnis, Phosferine, Owbridge's Lung Tonic, Clarke's Blood Mixture, Doan's Kidney Pills, Warner's "Safe" Cure, Zam-Buk, Capsuloids, Fenning's Cooling Powders, Dr. William's Pink Pills, Beecham's Pills, Mother Siegels Syrup, Zox, Blair's Gout Pills, Guy's Tonic, Daisy Headache Powders, Kaputine Head Powders, Lamplough's Pyretic Saline, Hall's Wine, Eno's Fruit Salts, and Tatcho Hair Restorer—all spelt as we reprint them. The sheet does not appear to have been prepared by anyone familiar with medical matters, but the young man did a brisk business with it.

# Speciality-pushing Ideas.

### Tooth-powder.

DOES your speciality go? Do you give it every reasonable chance of increasing your reputation and returns? In many cases the answer must be "No!" In this article I propose to deal with effective means of pushing and selling a preparation in constant demand—namely, tooth-powder; for example, take the name "Rosantyl." For convenience the subject is treated paragraphically.


PACKING.—*Your speciality* is more or less a reflection of *your personality*; let it therefore be well made, well packed, and well pushed. For refined neatness in labels gold or rose-coloured letters on rough matt white ground are hard to beat. It is advisable to have one's own design, and not crowd too much wording into a label. What there is should be striking (by reason of its distinctness) and forceful (by reason of a phrase or word). An example is given here. Unless the box is banded, a dull bronze-gold style is to be preferred, since it shows off such a label as described above to the best advantage.

ADVERTISING.—For counter-bills (one of which should be enclosed with every parcel and account) use good paper. Again, do not crowd the wording. Here are a few suggestions for sentences which will be found useful in drawing up advertisements:

Used by CONNOISSEURS; they SAY IT'S THE BEST!

The usual trouble of making a child clean its teeth overcome by giving it a box of "Rosantyl" Dentifrice.

Fragrant with odour of Eastern Rose (a phrase that "catches").

The Dentifrice "Rosantyl" meets with approval everywhere.

Besides its REMARKABLE EFFICACY, *you will like it* for its DELICATE FRAGRANCE.

To meet the persistent demand for a harmless and efficacious tooth-powder I have introduced "Rosantyl Dentifrice."

THOROUGHLY APPRECIATED by all of refined and discriminating tastes.

Use *but a little* "Rosantyl" Dentifrice, and ALL TRACES OF TARTAR WILL BE IMMEDIATELY REMOVED from your TEETH.

Local newspapers, church magazines, and other well-read publications should be used, and in this connection I think there is nothing like offering a dainty sample on presentation of a signed coupon; it gives not only an idea of how many people have noticed and interested themselves in the advertisement, but also provides a list of names and addresses which should be preserved so that further advertising-matter may be sent them from time to time. The great point is—peg away, fan the flame; don't let them forget the free sample.

Here is a method of initial introduction which is bound to bring the dentifrice into immediate prominence: Send a board-man round the town with a bill on which is printed in bold type:

"ROSANTYL." WHAT IS IT?

Continue this for two or three days, then answer it by another bill:

"AS YOU LIKE IT."—*Shakespeare.*

"Rosantyl" is the summit of perfection in Dentifrices. Price 6*d.* and 1*s.* per box. Dainty sample free.

[Name and address.]

Judicious sampling is a great factor in successful advertising. Samples should be sent to local doctors, dentists

(enclosing a stamped addressed envelope), and institutions. If your town is a yachting centre, means should be found of sending samples on board each yacht and getting them placed in the cabins; it may prove a little expensive at first, but yachting people generally buy in fairly large quantities, so that a good effort in this direction is worth while. I know one chemist who developed a considerable business in tooth-powder alone by this method.

Window-display is the best advertising medium in an average-size business; therefore dress your window with as much thought as you would give to writing an advertisement. An effective display may be made thus: (1) A bowl of roses (*Rosa damascena*); (2) a pile of dried rose-petals; (3) a small phial or tube of otto of roses; (4) one or two piles of loose dentifrice; and (5) a "surround" of the finished article. Tickets for the above may be respectively worded thus:

(1) Rosa damascena—the Damask Rose—source of "Otto of Rose."

(2) Dried petals of Rosa damascena.

(3) "The Soul of the Rose"—Otto of Rose—derived from *Rosa damascena*.

(4) The Remarkable Dentifrice "Rosantyl," which contains, among other ingredients rich in merit, "Otto of Roses."

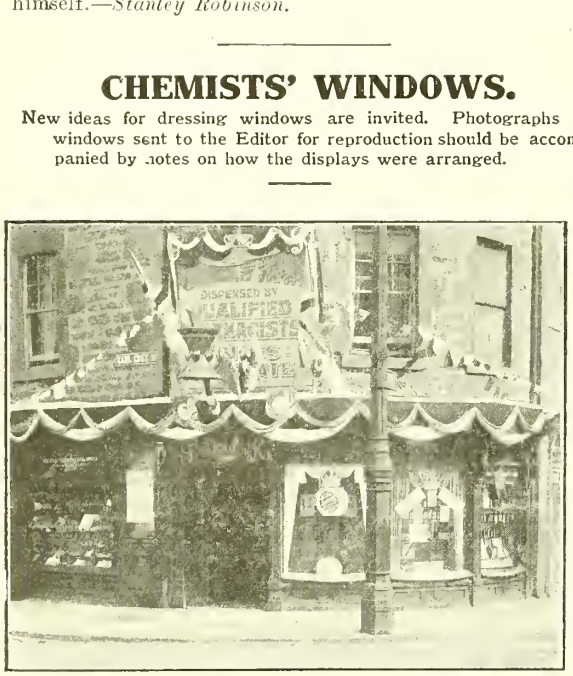
A large card or cut-out letters announcing "The Evolution of a perfect Dentifrice—'Rosantyl,'" should be placed in a prominent position, in order to give a "title" to the display. A fuller display might be made by including piles of the several ingredients of the tooth-powder base.

Showcards and Tickets.—At those times of the year when roses are unobtainable at reasonable prices resort may be had to coloured illustrations, mounted, or, better still, water-colour drawings. In any case the rose should play a prominent part, and in this connection information as to making artistic tickets will be found in the article on Ticket-writing (*C. & D.*, January 28, 1911, p. 148).

Results.—During the first year little, if any, net profit should be expected. It is, in fact, a good plan to keep a record of the cost, and use the profits for advertising-purposes. In any case, much depends on the pharmacist himself.—*Stanley Robinson.*

## CHEMISTS' WINDOWS.

**New ideas for dressing windows are invited. Photographs of windows sent to the Editor for reproduction should be accompanied by notes on how the displays were arranged.**




The above photograph represents the windows of the retail shop of Messrs. Davidson & Co., chemists, Edinburgh, as decorated for the recent visit to Scotland of his Majesty the King. We have also received pictures of the individual windows, but the general effect of the loyal decoration is better seen in the photograph reproduced above.

## Caoutchouc, B.P.

By Hermann C. T. Gardner, F.C.S.

THE simple monograph on caoutchouc in the British Pharmacopœia would lead the uninitiated to suppose that the "prepared milk-juice of *Hevea brasiliensis*, and probably other species . . . known in commerce as pure Para rubber," is a commercial article whose degree of purity could easily be determined by a few simple tests; indeed, it goes further in perpetuating an inaccuracy which must tend to confuse the pharmacist who applies these tests to the rubber. It states, for instance, that caoutchouc is "soluble in chloroform, oil of turpentine," etc. To be strictly accurate, caoutchouc does not form a true solution at all in these solvents, but is slowly diffused throughout them. Should, however, this be characterised as quibbling, I would point out, accepting the B.P. phraseology, that the pure Para rubber of commerce is not completely "soluble" in the solvents given. Chemically pure caoutchouc, $C_{10}H_{16}$, does dissolve, or diffuse, but the commercial article leaves a residue, which no amount of time will cause to pass into solution. The reason for this is that it always contains more or less inorganic salts, convertible into ash together with albuminous matters, all of which are insoluble in the reagents named.

Although the standard of rubber qualities, fine hard Para, does not exhibit a wide variation in constitution, the official monograph ignores the fact that there are numerous grades of good Para rubber obtained from *Hevea brasiliensis* cultivated on the plantations of Malay, Ceylon, and many other places, which strictly fall within the designation of the monograph.

I would suggest, as the outcome of considerable experience in rubber technique, that the revisers of the Pharmacopœia would do well to affix definite limits for impurities, and should assign a maximum ash-percentage in the dry washed rubber. When it is recalled that among the "other species" of *Hevea*, Para rubber is obtained from the latices of *H. lutea*, *H. spruceana*, *H. Benthamiana*, and other species, it will be seen that there is a possibility of the pure Para rubber of commerce not being invariable.

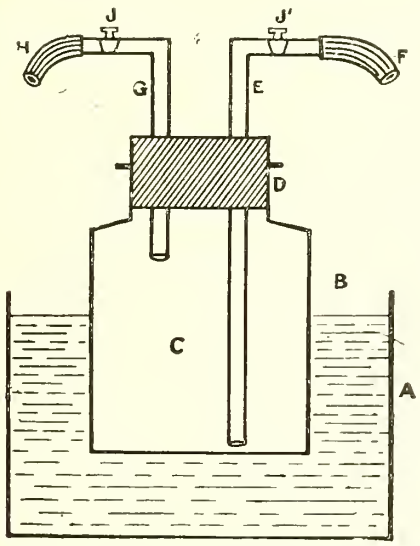
As the raw rubber on "coagulation" becomes admixed with other constituents of the latex, such as albuminous and resinous bodies, and as it is apt to be contaminated with extraneous foreign matters, such as earth, woody particles, etc., and, moreover, as the water may be imperfectly eliminated during curing, it is obviously essential that some limit should be set to the proportion of these things.

In actual practice I have found that the quantitative examination of rubber can be reduced to a simple procedure, which I will describe as possibly being of service to the pharmacist who desires to test accurately his caoutchouc, and from which will be seen the incompleteness of the B.P. monograph. Before commencing the analysis small portions of sections from different parts of the cake should be sliced up as *finely* as possible and mixed.

In a determination of the moisture the rubber should not be heated in the air to too high a temperature, otherwise inaccurate results will be obtained through the oxidation of the rubber. Although some authorities advocate heating the divided rubber at a temperature not higher than 60° C. until of constant weight, such a procedure is not to be recommended.

*Estimation of Water.*—The best method I have found is to take 2 grams of the sliced rubber and dry it in an apparatus such as that figured. C is a light wide-mouthed bottle fitted with a tightly fitting vulcanised caoutchouc stopper, D, bored with two holes. G and E are two glass tubes bent at right angles and fitted with stopcocks, J, J'. A rubber tube, F, connects E with a source of coal-gas, while G is connected with a vacuum-pump with the pressure-tubing, H, a vacuum-flask being interposed between the bottle and the pump in order to catch any back suction of water. The bottle is suitably fixed in a pan, A, containing brine, B, heated with a Bunsen burner. The vacuum-flask is then started, and coal-gas passed in to expel the air. After a minute or two the stopcock J' is closed to shut off the gas, and the heating is continued for four hours.

In this manner all risk of oxidation is avoided, while a comparatively high temperature can be applied. Before weighing, the bottle is well wiped, and after the cork




and tubes are removed it is quickly placed in a desiccator to cool. The weight of the bottle being known, the loss in weight of the rubber, and hence the moisture, can be simply found.

*Ash.*—About 0.5 gram of the rubber is incinerated in an open crucible, and the ash ascertained in the usual way.

*Resins.*—The resins of rubber are peculiar, the most suitable solvents being acetone or glacial acetic acid. As a rule, acetone will dissolve the resins of Para rubber. One gram of the dried rubber should be placed in a Soxhlet apparatus connected with a flask containing acetone and fitted with a reflux condenser. The acetone should be kept in ebullition, and at least two dozen runnings allowed. On completion, all that is necessary is to evaporate off the acetone and weigh the flask and resin, the weight of the flask having been previously ascertained. As the dried rubber was taken, allowance must be made for the percentage of water in calculating the percentage of resins in the crude rubber.

*Proteids.*—About 0.5 of the raw rubber should be taken, and the nitrogen estimated either by Kjeldahl's or the soda-lime process. From the amount of nitrogen found the quantity of proteid may be deduced by multiplying with the factor 6.33, because rubber proteid is assumed to contain 15.8 per cent. of N, and $\frac{100}{15.8} = 6.33$. A proportion sum will give the percentage.

Fine hard Para normally contains from 1.2 to 2.0 per cent. of resins and 0.2 to 0.7 per cent. of ash. The amount of proteid usually ranges from 3 to 4 per cent., and the water anything from 5 to 10 per cent., or even more. Plantation Para, as a rule, contains much less water, say, from 0.75 to 3 per cent. A good rubber should contain at least 90 per cent. caoutchouc, though 95 per cent. or even 97 per cent. is not unusual in plantation samples.

I think it will be seen from the foregoing remarks that an amplification something on the lines suggested, without the details, would greatly enhance the value of the B.P. monograph.

## Iodine-value of Fatty Oils.

By Ernest J. Parry, B.Sc., F.C.S.

FOR some time past I have had cases in which my determinations of the iodine-values of certain fatty oils differed from corresponding determinations made on the same sample by Continental chemists. These variations have been too great to be accounted for by ordinary personal error. The reason, however, became apparent when I examined the new edition of the German Pharmacopœia. The process to be used for the iodine determination is given in full ("D.A.B.," V., xxxvi., 26), and is Hübl's process, but the following statement is added :

"The quantity of iodine must be sufficiently great that after two hours the solution remains dark brown in colour. After this time the reaction is complete. For linseed and cod-liver oils the reaction must be allowed to go on for eighteen hours."

This is not true, and the custom which appears to have recently developed on the Continent of returning an iodine absorption after two hours' reaction is much to be regretted, and it is to be hoped that at least six hours will be specified in the next edition of the British Pharmacopœia. Lewkowitsch (3rd edition, vol. I., p. 242) states :

"Most of the iodine is absorbed during these two hours. The reaction then slows down and cannot be considered completed before six to eight hours in the case of solid fats and non-drying oils, and twelve to eighteen hours in the case of drying oils and fish oils. Semi-drying oils require eight to ten hours to complete the absorption of iodine."

These views are those generally held by chemists having special experience in the analysis of fats. I have, however, made a number of determinations of the iodine-values of given samples of oil for different times, which show clearly that the absorption is not completed in two hours, therefore that the longer period should always be allowed. The following are the results obtained :

Olive Oil (a Non-drying Oil).

| No. | 2 hours | 3 hours | 4 hours | 5 hours | 6 hours |
|---|---|---|---|---|---|
| I. ... | ... 79 | 80.5 | 81.8 | 82.5 | 83 |
| II. ... | ... 80.5 | 82 | 83 | 83.6 | 84.5 |
| III. ... | ... 81 | 81.5 | 81.8 | 82.4 | 82.9 |
| IV. ... | ... 80.6 | 81.7 | 82.4 | 82.9 | 82.9 |

Apricot-kernel Oil (Non-drying Oil).

| | 2 hours | 3 hours | 4 hours | 5 hours | 6 hours |
|---|---|---|---|---|---|
| I. ... | ... 98 | 99.9 | 100.4 | 101.6 | 102.5 |
| II. ... | ... 100 | 101 | 102.3 | 103 | 104 |
| III. ... | ... 101.4 | 102.8 | 102.8 | 103.5 | 104.2 |
| IV. ... | ... 100.8 | 102 | 103 | 103.6 | 104 |

Cod-liver Oil (Fish Oil).

| | 4 hours | 8 hours | 12 hours | 18 hours |
|---|---|---|---|---|
| I. ... ... | ... 144 | 158 | 163 | 169 |
| II. ... ... | ... 146 | 156 | 163 | 168 |

Sesame Oil (Semi-drying Oil).

| | 2 hours | 4 hours | 6 hours | 8 hours |
|---|---|---|---|---|
| I. ... ... | ... 101 | 106 | 108 | 103 |
| II. ... ... | ... 100.8 | 107 | 109 | 109.5 |
| III. ... ... | ... 100 | 105.9 | 108.5 | 109 |

Linseed Oil (Drying Oil).

| | 4 hours | 8 hours | 12 hours | 18 hours |
|---|---|---|---|---|
| I. ... ... | ... 169 | 178 | 186 | 189 |
| II. ... ... | ... 165 | 178 | 183 | 184 |
| III. ... ... | ... 170 | 184 | 189 | 190.5 |

It is to be hoped, therefore, that adequate time will be specified in the description of the iodine-value determination in the next British Pharmacopœia.

## Citronella Oil Standard.

MR. JOHN C. UMNEY, F.C.S., in the course of an Editorial on this subject in the "Perfumery and Essential Oil Record" for August, submits details of the characters and tests for the purity and odour-value of the oil. Mr. E. J. Parry and the analytical chemists of several of the largest soap-manufacturers have co-operated with him, and to judge of the accuracy of the assay process, sealed samples from the same bulk have been examined by himself and each of the analysts. The maximum difference in geraniol from highest to lowest was found not to exceed 0.5 per cent., which is certainly sufficiently close for all commercial purposes. Criticism and comment upon these characters and the tests and their working are invited. They are as follows :

Sp. gr. at $\frac{15.5°\ C.}{15.5°\ C.}$ ... ... 0.898 to 0.910
Optical rotation ... ... −7° to −13°
Acidity expressed as acetic acid ... ... ... Not above 0.25 per cent.
Soluble in 2-3 vols. of 80 per cent. by vol. alcohol, and clear on further addition of the alcohol up to 10 vols.
Acetylisable constituents stated as geraniol, at least 58 por cent.

*Estimation of Geraniol.*—Ten c.c. of the oil with 15 c.c. of acetic anhydride (Note 1) and 1 gram of anhydrous sodium acetate are boiled for two hours under a reflux condenser. The mixture is cooled without removing the flask from the condenser, and about 50 c.c. of water is slowly added through the condenser tube. The contents of the flask are heated to not more than 70° C. for about twenty minutes, poured into a separating funnel, and washed with cold neutral brine (Note 2) until all soluble acid is removed. The washed acetylated product is dried with anhydrous neutral sodium sulphate, and from 2.5 to 5 grams saponified with alcoholic potash in the usual way. Any free acidity is neutralised before measuring the volume of decinormal KOH, and saponification is completed by heating on a boiling water-bath for forty-five minutes. The excess of KOH is titrated with decinormal acid.

The acetic anhydride should contain at least 95 per cent. of actual anhydride, and be free from higher homologues. Water may be used instead of brine, but the latter is to be preferred, as it separates more rapidly from the oil.

# Practical Notes and Formulae.

## Petrox Preparations.

Berenger, in a paper before the Philadelphia College of Pharmacy, described a series of improved petrolatum-oleic acid combinations, which he designates petrox preparations. The following are some of the formulæ given in the paper:

*Solid Petrox.*

| | |
|---|---|
| Paraffin wax | ...37 grams |
| Liquid paraffin | ...20 grams |
| Oleic acid ... | ...30 grams |
| Lavender oil | ... 3 grams |
| Alcohol ... | ... 5 grams |
| Strong solution of ammonia | ... 5 grams |

Melt together the paraffin wax and liquid paraffin on a water-bath; add the oleic acid and transfer to a warm mortar. Immediately add the lavender oil, alcohol, and ammonia previously mixed, and stir continuously till cold.

*Liquid Petrox.*

| | |
|---|---|
| Liquid paraffin | ...50 grams |
| Oleic acid ... | ...28 grams |
| Lavender oil | ... 2 grams |
| Strong solution of ammonia | ... 5 grams |
| Alcohol ... | ...15 grams |

Mix the liquid paraffin, oleic acid, and lavender oil in a flask, add the alcohol, and finally the ammonia, shaking till clear, warming on a water-bath if necessary.

The liquid petrox is soluble in ether, chloroform, benzine, and acetone, and produces an emulsion on shaking with twice its volume of water. Medicated-petrox preparations are made by adding the required proportion of medicament such as eucalyptol, ichthyol, and menthol, but the following are among the exceptions:

*Iodine Petrox.*

| | |
|---|---|
| Iodine ... | ...10 grams |
| Oleic acid ... | ...40 grams |
| Alcohol ... | ...20 grams |
| Liquid paraffin | ...23 grams |
| Lavender oil | ... 2 grams |
| Strong solution of ammonia | ... 5 grams |

Powder the iodine and transfer to a flask; add the alcohol and then the oleic acid, and shake till the iodine is disolved. Now add the lavender oil and liquid paraffin, shake, and add the ammonia, shaking until a clear solution results.

*Iodoform Petrox.*

| | |
|---|---|
| Iodoform ... | ... 3 grams |
| Acetone ... | ...20 grams |
| Oleic acid ... | ...10 grams |
| Eucalyptol ... | ... 3 grams |
| Liquid petrox | ...64 grams |

Dissolve the iodoform in the acetone, add the eucalyptol, oleic acid, and the liquid petrox, and mix.

*Sulphur Petrox.*

| | |
|---|---|
| Sublimed sulphur | 3 grams |
| Linseed oil ... | ...37 grams |
| Oleic acid ... | ...30 grams |
| Liquid petrox, to make ... | 100 grams |

Heat the sulphur and linseed oil in a flask in a sand-bath until the sulphur is dissolved; cool, add the oleic acid and enough liquid petrox to weigh 100 grams, warming slightly if necessary to obtain a clear liquid.

*Compound Sulphur Petrox.*

| | |
|---|---|
| Sulphur petrox | ...10 grams |
| Cade oil ... | ...10 grams |
| Thymol ... | ... 0.3 gram |
| Eucalyptol ... | .. 3 grams |
| Turpentine | ...30 grams |
| Liquid petrox, to make ... | 100 grams |

Mix the thymol and eucalyptol, add the oils and then the sulphur petrox, finally making up to 100 grams with liquid petrox.

## A Multiple Pill-excipient.

Danzel, in the "Bulletin Commercial," gives the following compound powder for use as a universal excipient for pills:

| | |
|---|---|
| Powdered liquorice-juice ... | ... 4.00 grams |
| Powdered tragacanth ... | ... 2.00 grams |
| Powdered almond soap ... | ... 2.00 grams |
| Powdered wheat starch ... | ... 1.20 gram |
| Powdered white sugar ... | ... 0.60 gram |
| Magnesium hydroxide ... | ... 0.60 gram |

Mix into a homogeneous powder.

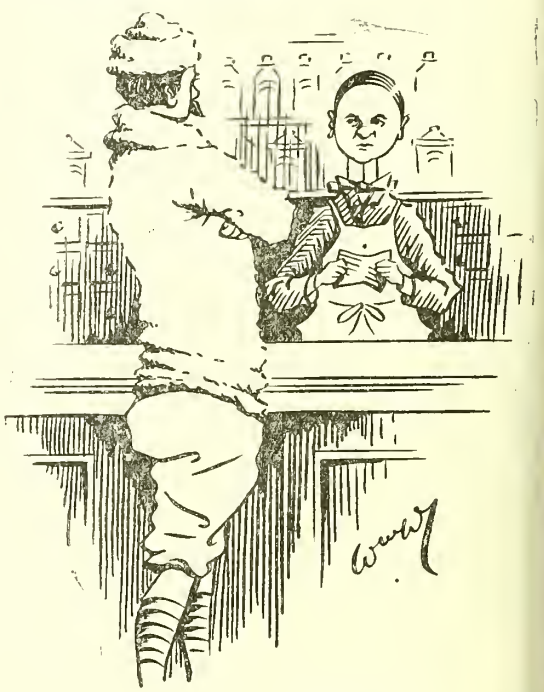
For liquids or viscous substances this powder suffices to form pills, but with powdered substances an agglutinant such as honey or mucilage is needed.

# The Progress of Perk.

*Artist and Rhymer join to show how a pharmacist was evolved.*

V.

A Chastened Spirit marks the Second Year,
For unfamiliar things familiar grow;
And sometimes when the Apothecary dines,
Or rests reposeful in the afternoon,
Our hero, eager, hastens out to serve
The casual customer who breaks the lull
'Twixt noon and eventide. Perk thus confronts
All sorts of humankind: the mother proud,
With offspring suffering from the want of tooth;
The maiden with a tooth she'd rather want;
The youth who knows it all, or wants to know;
In every case the precepts Perk has learnt,
Through careful study of his master's ways,
Direct him to a calm judicial view
Of individual idiosyncrasies.



Thus he
Is nowise ruffled when the airman cries:
"This hath been given. Will it send me up
Swift, unafraid, in aeroplanic flight?"
"Truly," quo' Perk, "the proper thing, indeed;
Nothing so sure as nitroglycerin."

. . . . . .

The tide of evolution, slow but sure,
Sweeps back the primitive and urges on
The progress of the ages. Thus we now
Must even mark each flighty Birdman's whim
And profit in accordance with his need.

# Chemists' Dental Society.

THE Council-meeting which was held at the Holborn Restaurant, London, W.C., on July 6, the day of the historic Mass Meeting of chemists, was an important one in the annals of the Chemists' Dental Society, in that the officers who are to shape the career of the Society were elected. It is interesting to note that all the officers and Council, besides engaging in dental work, are actually in business as chemists, which should ensure that the practical

Mr. J. H. Tasker.

Mr. E. Brownbill.

side will not be lost sight of. We give the portraits of the four officers, with brief notes of their careers, which will particularly interest the members of the new Society.

Mr. J. H. Tasker, who has been elected the first President of the Chemists' Dental Society, is in business at 146 Wandsworth Bridge Road, Fulham, London, S.W. He was educated at the Anglo-French College, Finchley, and in France. After passing the College of Preceptors' examination with honours, he served his apprenticeship with his father, the late Mr. W. Tasker, of Islington. He passed the Minor in July 1890, and took over the management of a business for Mr. R. H. Cumine, chemist and dentist, Forest Gate, which post he occupied for five years, next taking over the managership of Messrs. Davies & Co., Commercial Road, for two years. After that Mr. Tasker opened his present business in Wandsworth Bridge Road, which he has carried on successfully for the last fifteen years.

Mr. J. O. Stringer.

Mr. W. Meakin.

Mr. Tasker has a pleasant manner with him, which should go far to make the conduct of the Council business a happy function.

Mr. Edward Brownbill, 166 Woodhouse Street, Leeds, who is the Vice-President of the Society, commenced his pharmaceutical career with Mr. G. Smith, of Wakefield, and his dental experience with Mr. Crowther, dentist. He next went to Sheffield and Manchester, continuing the practice of dentistry and pharmacy at both places. He then studied at the Northern College of Pharmacy for the Minor, which he passed in 1892. Some years were next spent in London, the last two of which were as manager with Mr. J. F. Harrington, of Kensington, ex-President of the Pharmaceutical Society. On leaving London Mr. Brownbill went to Leeds, where he has carried on his present pharmacy and dental practice for the last fourteen years.

Mr. J. Oswald Stringer, Thames Street, Kingston-on-Thames, who is Treasurer of the Society, passed the Minor examination in April 1894, and in the same year acquired his present business at Kingston-on-Thames. He has also a branch at High Street, Hampton Wick, and has built up a good dental practice.

Mr. William Meakin, the Hon. Secretary, who is in business at Mansfield Road, Nottingham, started his apprenticeship seventeen years ago with the late Mr. J. H. Skelton, Eastwood, Notts, with whom he stayed six years. He afterwards went as junior assistant, first to the late Mr. William Merry, Ilkeston, and then to Mr. William Bishop, Welshpool. After that he returned to Mr. Merry as senior assistant, and then again to his apprentice-master, staying until the death of Mr. Skelton. The next step was to take a course at the Nottingham School of Pharmacy, which enabled the Minor to be successfully negotiated at Edinburgh in October 1903. Mr. Meakin then came to his present business as manager for Mr. Ellis, of Carrington, and remained in his employ until May 1905, when he purchased the business. This is a dispensing business with dentistry as a side-line. Mr. Meakin has four dental branches—viz., Arnold, Shirebrook, Eastwood, and Langley Mill—which he attends on different days of the week.

# MEDICAL GLEANINGS.

### The Treatment of Eczema.

Dr. R. Stopford Taylor, of Liverpool, in a paper before the Dermatological Section of the British Medical Association, described the form of dressing which he employs in the treatment of eczema. He takes a piece of wetted lint, and then puts the ointment or paste on the smooth side of the lint and covers it with a piece of butter-cloth, which is placed next the skin, and sometimes a piece of gutta-percha tissue is placed outside all. In acute cases this dressing may need changing twice daily, but in chronic cases less frequent dressing will be quite sufficient. He laid stress on the importance of not allowing any interval to elapse between one dressing and another. The wet lint and the butter-cloth are employed because they allow drainage.

### Carbonic-acid Inhalation.

Dr. W. Ewart demonstrated at the annual meeting of the British Medical Association a method for the clinical use of carbonic-acid gas, for the following description of which we are indebted to "The Lancet": The apparatus consisted of a special mouthpiece with two tubes, one for the inhalation of carbonic-acid gas, the other to act as an air-way or for the inhalation of any other substance. The carbonic-acid gas was collected in a container from an ordinary soda-water syphon. Dr. Ewart has found that these syphons supply on an average about 2,400 c.c. of the gas. The container was graduated and was connected by tubing with the mouthpiece and with a contrivance for discharging the gas. Dr. Ewart gave a review of the development of our knowledge in regard to the employment of carbonic-acid gas for therapeutic purposes. He pointed out that until recently physiological study had been directed to the lethal and asphyxial properties of the gas, but now physiologists had confirmed the results of clinical work upon its usefulness in smaller quantities. Experiments have demonstrated that it is safe to inhale as much as 6 per cent., but Dr. Ewart does not go beyond 4 per cent. in employing it in his wards. He described its chief therapeutic actions as follows: It stimulates expiration, acts as a cardiac stimulant, exerts an indirect effect as a sedative, and possesses the property of toning up a weak pulse. It is also useful in spasmodic conditions. Dr. Ewart also attributed the beneficial effects of the Nauheim baths to the inhalation of the carbonic-acid gas given off from the water.

# PATENT SPECIFICATIONS.

**Printed copies of the following specifications are on sale (8d. each) at the Patent Office, 25 Southampton Buildings, London. W.C., a fortnight after the notice of acceptance has appeared in the "Official Journal" (Patents) of the given dates. Persons desirous of opposing the grant of a patent must do so in the prescribed form within two months from the date of the "Journal" in which the notice appeared.**

## Specifications Accepted.

*August 2, 1911.*

Manufacture of Artificial Manure. 12844/10. Henschkel.
Apparatus for Handling Invalids. 17376/10. Skeffington.
Treatment of Siliceous Zinc Ores. 17785/10. Dick.
Daylight Development Apparatus. 17879/10. Forbes.
Machine for Cutting Bandage Rolls. 22169/10. MacDonald & Thomson.
Detecting Escape of Gases. 22303/10. Di Legge.
Preservative Treatment of Milk. 24162/10. Mollinger.
Toning Photographic Prints. 24378/10. Triepel.
Condensation Products of Gallo-cyanines and Derivatives. 24682/10. Johnson. (Badische Anilin & Soda Fabrik.)
Invalids' Bed-supports. 26233/10. Austin & Norrish.
Apparatus for Production of Bacteria and Yeasts. 26773/10. Cohendy.
Manufacture of Gold, Aluminium, Silver, etc., Leaf. 27020/10. Johnson.
Feeding-bottles. 29402/10. Craven.
Producing Compounds of Phosphorus with Sulphur as Non-poisonous Priming Materials. 29989/10. Paul.
Alkaline Peroxide in Unalterable Form. 30185/10 Thomann.
Manufacture of Ammonia. 61/11. Johnson. (Badische Anilin & Soda Fabrik.)
Preparing Hydrogen. 153/11. Jaubert.
Generating Hydrogen. 401/11. Saubermann.
Organic Derivatives of Arsenic Acid. 568/11. Bart.
Bed-pans. 692/11. Houdard.
Measuring Permeability of Rays of Light of Photographic Negatives. 1365/11. Leumann.
Manufacture of Potassium and Ammonium Phosphates. 2304/11. Klingbiel.
Spraying Device for Irrigation. 2606/11. Vacher.
Preventing Collar Boils on Neck. 4877/11. Dittmer.
Reduction of Fats and Unsaturated Fatty Acids. 5188/11. Paal.
Production of Graphite, etc., in the Manufacture of Ammonia. 5713/11. Collett & Eckardt.
Artificial Caoutchouc. 6540/11. Farbenfabriken vorm. Friedrich Bayer & Co.
Delivering Measured Quantities of Liquid. 7441/11. Fairbrother.
Producing Ammonium Nitrate. 10759/11. Gewerkschaft des Steinkohlenbergwerks. Lothringen & Uhde.
Apparatus for Determining Amount of Albumin in Liquids. 14720/11. Kurlecki.

*August 10, 1911.*

Manufacture of Fruit-wine. 15504/10. Von Stuckrad.
Electrolysis of Fused Alkali Chlorides. 18300/10. Ges. für Chemische Industrie in Basel.
New Form of Indigo. 18761/10. Imray. (Farbwerke vorm. Meister, Lucius & Brüning.)
Hardening, etc., Surface of Tantalum. 18780/10. Marks. (Siemens & Halske Akt.-Ges.)
Delivering Liquid-soap in Measured Quantities. 26948/10. Reichhardt.
Reducing Sulphates into Sulphides. 27477/10. Bollo & Cadenaccio.
Apparatus for Disinfecting by Means of Fumigation. 28168/10. Kingzett & "Sanitas" Co.
Producing Ferro-prussiate Prints. 22258/10. Salzmann.
Thermometers. 3637/11. Heddle.
Tooth-brushes. 5471/11. Nuyts.
Application of Radiant Heat to Body. 6526/11. Dowsing.
Testing Oils. 7617/11. Company Oelwerke Stern-Sonneborn Akt.-Ges.
Photometers. 11111/11. Kummerer & Ges. für Elektrotechnische Industrie.
Recovering Corrosive Acids from Absorbents. 11245/11. Hale.
Shaving-brush. 12490/11. Legrand.
Manufacture and Storage of Hydrogen Peroxide. 13187/11. Pietzsch & Adolph.
Electrolysis of Fused Alkali Chlorides. 17047/11. Ges. für Chemische Industrie in Basel.

*August 16, 1911.*

Suspensory-bandage. 18692/10. Musson.
Manufacture of Borax. 18764/10. Wagner.
Treating Liquids by Ultra-violet Rays. 18768/10. Henri, Helbronner & Von Recklinghausen.
Manufacture of Ammonium Nitrate. 19141/10. Henry.
Manufacture of Ammonia. 19249/10. Johnson. (Badische Anilin & Soda Fabrik.)
Manufacture of Nitrogen Oxides. 20777/10. Häusser.
Machines for Applying Labels. 21441/10. Rose & Rose Bros. (Gainsborough), Ltd.
Administering Anæsthetics. 22214/10. Bloss, Phillips & Dental Manufacturing Co.
Keratometers and Ophthalmometers. 24010/10. Gowlland, Gowlland & W. Gowlland, Ltd.
Lotion for Skin. 24043/10. Dunlop & Dunlop.
Manufacture of Zinc Sulphate. 561/11. McCowan.
Moulds for Aluminium Siphon Heads. 3583/11. Poncet & J. Guyot.
Extracting Oil and Manufacturing Oil-cakes. 4262/11. Oga.
Treating Boot-lining to Counteract Effect of Perspiration. 7613/11. Kopf.
Sputum-cups. 9468/11. Greenwood.
Medical Syringes. 10396/11. Tyrrell.

*August 23, 1911.*

Cooling, Disinfecting, Perfuming, etc., Air. 11819/10. J. Stone & Co. (Shelley.)
Optical Prisms. 18997/10. Ahrens & Pillischer.
Purifying Air From Bacteria. 21611/10. Keith & Abrev.
Separation of Mesothorium from Monazite Sand. 25504/10. Soddy.
Manufacture of Erythrene and its Homologues. 27555/10. Newton. (Farbenfabriken vorm. F. Bayer & Co.)
Catalytic Agents for use in the Manufacture of Ammonia. 5833/11. Johnson. (Badische Anilin & Soda Fabrik.)
Process for Preparation of Ammonium Chloride and Sulphates of Calcium, etc. 6684/11. Friedrich.
Collodion Silver Bromide Photographic Plate. 7201/11. Enjobras.

*August 30, 1911.*

Soaps for Washing and Bleaching. 19494/10. Wolffenstein.
Waterproofing Composition. 19714/10. Blackman.
Making Hydrochloric and Hydrobromic Acids. 21128/10. Westhausser.
Destroying Cotton and Silk Fibres in Wool. 22101/10. Crowther.
Effecting Catalytic Reactions Between Gases. 23045/10. Phillips & Bulteel.
Hypodermic Injectors. 24629/10. Prytherch.
Pocket-cases for Thermometers. 712/11. Short & Mason, Ltd. (Taylor Instrument Companies.)
Electrical Chest-warmer. 1481/11. Selvatico.
Eye-massaging Appliances. 2815/11. Highwater.
Spinal Supports. 5625/11. Haas.
Oil-testing Machine. 7616/11. Oelwerke Stern-Sonneborn Akt.-Ges.
Converting Ammonium Sulphite into Sulphate. 12227/11. Burkheiser.

## Specifications Open for Inspection.

Producing Solutions of Nitrogen Pentoxide in Monohydrate of Nitric Acid. 15432/11. Elektrochemische Werke Ges.
Manufacturing a Mixed Gas. 16373/11. Pictet.
Electrolytic Production of Ammonium Nitrate from Hydrated Nitric Acid. 16426/11. Elektrochemische Werke Ges.
Extraction of Indiarubber. 10216/11. W. Hiestrich Nachf.
Compounds for Use in Brewing Fermented Beverages. 15121/11. Stein.
Shaving-brushes, Tooth-brushes, etc. 15414/11. Van Dyck Berg et Fink.
Polishing Silver Articles. 9041/11. Wenger et Cie.
Manufacture of Hydrogen. 17589/11. Jaubert.
Dietetic Products. 18004/11. Landin.
Manufacture of Arsenic and Iron Free Sulphuric Acid by the Chamber Method. 17157/11. Girod & Graflich von Landsberg-Velen & Gemen'sche Chemische Fabrik Berg- und Huttenwerke Ges.

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There was an increase of 38,838*l.* in the value of the imports of chemical products, drugs, and medicines into Santos (Brazil) during 1910.

Maracaibo Copaiba.—The exports from Maracaibo (Venezuela) during 1910 amounted to 69,497 kilos., valued at 7,189*l.*, against 59,139 kilos., valued at 7,005*l.*, in 1909.

## Olive Oil in France.

DURING the last decade the associations for the production and sale of olive oil have developed considerably in the oil regions of Provence and Languedoc. For some time past there has been a serious crisis in the olive-growing industry, which was primarily due to the competition of foreign oils from oil-seeds. On the other hand, as the olive-growers had no suitable machinery at disposal—they were able at most to count on rough wooden presses—they found themselves at the mercy of speculators and the proprietors of more or less improved oil-works, whose whole interest lay in keeping back as much oil as possible in the olive-husks, which became their property after the oil had been expressed. The natural result was that the growers received but a small quantity of oil of a poor quality from their olives, which was unequal to the competition on the market. The June number of the "Bulletin of Economic and Social Intelligence," published by the International Institute of Agriculture, contains an interesting study on the first steps made in this field by co-operation on its development and its future. We give the following summary of the main points dealt with in the article: In 1900 the first group of olive-growers was formed at Codoux (Bouches-du-Rhône), and gave the happiest results. This example was soon followed by the growers of Cabris and Gilette (Maritime Alps), who set up some model oil-works. The movement spread rapidly, encouraged by the Government, and at the end of 1910 there were no fewer than twenty co-operative oil-works in the South of France. The Government aids the movement in various ways—by spreading the principles of co-operation and technical instruction, granting fiscal immunities or subsidies, and granting loans at a low interest through the Mutual Agricultural Credit Banks of the various districts, in accordance with the law of December 29, 1906. These loans are granted for a maximum period of twenty-five years up to double the amount of the paid-up capital, at an interest not exceeding 2 per cent. In 1910 as many as eleven co-operative oil-works had received low-interest loans for sums varying from 4,000 to 45,000 francs, the total sum advanced being 170,000 francs.

The co-operative oil-works have, as a rule, an average of about a hundred members; each extract annually from 40 to 150 double decalitres of olive oil. Several systems of plant are used; some societies buy or rent an old olive-mill and bring it up to date, others buy suitable premises or have them built, and furnish them with a complete plant, while others have the necessary premises presented to them by the Commune, an association, or some private benefactor. In the first case it is estimated that the sum required for the installation and working of a small model oil-works varies between 20,000 francs and 30,000 francs—*i.e.*, 12,000 francs for the building, from 8,000 to 10,000 francs for the machinery, and from 300 to 5,000 francs for the various expenses and the initial circulation fund. The Co-operative Oil Works of Grasse, which has at the present day a capital of 18,700 francs, has acquired a large oil-works furnished with the apparatus for the extraction of the oil from the husks, and worked by hydraulic power; the entire plant cost 47,000 francs. In order to meet this expenditure, the society obtained a loan of 30,000 francs from the Regional Bank of Mentone at the rate of 2 per cent., and repayable in twenty years. Among the more important co-operative oil-works is the "Travailleuse" of Cotignac (Var), which has a capital of 10,625 francs, divided into 25-franc shares yielding an interest of 3.60 per cent. This society had a loan of 25,250 francs for twenty years at the rate of 1.50 per cent. Its steam plant cost 45,350 francs, and can treat 60 double decalitres of olives per hour. According to recent information, the movement appears to be extending to Algiers. The double decalitre of olives, which now produces an average of 2.3 to 2.6 litres of oil—that is, from 3 francs to 3.25 francs—gives a return of from 50 centimes to 75 centimes more than formerly, and by utilising the secondary products it has been found possible not only to cover the expenses of manufacture but also to pay the interest on the loan.

## Census of Production.

A BLUE-BOOK (Cd. 5813) has been issued by the Board of Trade summarising the preliminary results of the returns received under the Census Act, together with a short report by the Director of the Census. The tables cover a wide range of industrial activity, and may indeed be said to cover the bulk of the labour of the United Kingdom apart from agriculture. The chief figures arrived at are as follows:

| | Gross Output Per Million £ | Material Used. Million £ | Persons Employed. Thousands |
|---|---|---|---|
| England and Wales ... | 1,483 | 860 | 5,764 |
| Scotland ... ... ... | 208 | 116 | 885 |
| Ireland ... ... ... | 66 | 43 | 287 |
| United Kingdom ... | 1,757 | 1,019 | 6,936 |

Mr. G. R. Askwith, the Director of the Census, draws attention to the facts that in addition there were employed about 100,000 outworkers, and that the figures show that with some seven million persons employed, there was added by labour a value of, roughly, 712 millions sterling to the value of the raw materials purchased. Special importance attaches to the inquiry, as it not only indicates for the first time the relative and absolute magnitudes of the different industries, but it will, in conjunction with subsequent censuses, provide a means of measuring the manufacturing and industrial development of the Kingdom. Included in the Preliminary Tables is a return of output from gas undertakings by companies and public authorities. These figures, so far as they relate to items connected with the chemical trade, we give below, together with the output of private firms and companies connected with the tar-distillation industries:

| — | From Gas Undertakings only | Total Output for U.K. |
|---|---|---|
| Crude tar ... ... | 653,000 tons | 846,000 tons |
| Ammoniacal liquor | £322,000 | £361,000 |
| Ammon. liquor and crude tar, not separately distinguished ... ... | £179,000 | £179,000 |
| Ammonia sulphate... | 105,000 tons | 260,000 tons. |
| Anthracene ... ... | 296,000 lb. | 3,126,000 lb. |
| Benzol and toluol ... | 46,000 gals. | 6,212,000 gals. |
| Carbolic acid ... | 18,000 gals.<br>18,000 cwt. | 688,000 gals.<br>160,000 cwt. |
| Naphtha ... ... | 281,000 gals. | 4,188,000 cwt. |
| Naphthalene ... | 44,000 cwt. | 283,000 cwt. |
| Pitch ... ... ... | 85,000 tons | 647,000 tons. |
| Tar (ref.) and tar-varnishes ... ... | 642,000 gals. | 6,215,000 gals. |
| Tar oil, creosote, etc. | 7,877,000 gals. | 65,613,000 gals. |
| Other products ... | £199,000 | £565,000 |

The total value of the above-mentioned products produced by gas undertakings only amounted in 1907 to 30,285,000*l.*, and is exclusive of the value of any gas and coke used in the gasworks where they were made. The exports of sulphate of ammonia amounted to 231,000 tons, or 89 per cent. of the total output; the imports are not separately specified, but they are quite negligible. The exports of carbolic acid amounted to 126,000 cwt., valued at 154,000*l.*, free on board; those of anthracene and naphthalene to 1,000 cwt., valued at 28,000*l.*, free on board; and the exports of all other coal-tar products (not dyes) were valued at 1,064,000*l.*, free on board. The net imports of coal-tar products (not dyes) were valued at 87,000*l.* at port of landing.

"Catch-phrases" nicely printed on showcards are good to place in the window. Passing the American Pharmacy in Northumberland Avenue the other day we found two that attract attention—namely, "If it's American, we sell it"; and the other, "Leave your headache here." Mr. Charles Brooks, the proprietor, told us that these notices bring customers into the shop. We shall be glad to receive from subscribers and their assistants other phrases which they think useful in business.

# TRADE REPORT.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. Retail buyers cannot, therefore, for these and other reasons, expect to purchase at the prices quoted here.

**42 Cannon Street, London, E.C., August 31.**

THE month is closing with indications of an improvement in business all round, and it is to be hoped that with the approach of autumn a full return of confidence will be established. The principal changes of the markets include an advance in ipecacuanha, due to the small stocks. Ergot has shown more activity at firm rates, and better prices have been paid for cascara sagrada. Buchu is quiet but firmly held. Chamomiles are unaltered, and Norwegian cod-liver oil is firm, with stiffer rates asked in some quarters. Opium is quiet, but with renewed buying a recovery is predicted from present sagging tendency. Among chemicals, foreign citric acid has slightly advanced. Cream of tartar is flat. Milk-sugar is excessively scarce, but present extreme rates are regarded as temporarily only. Strychnine is 2*d.* per oz. dearer, and zinc oxide is 25*s.* per ton higher. Lead salts and refined nitrate of soda are firmer. Other changes include cheaper prices for lime-juice, sweet orange oil, and quicksilver (seconds). The chief alterations are as below :

| Higher | Firmer | Easier |
|---|---|---|
| Canary-seed | Anise | Lime-juice |
| Citric acid (foreign) | Cascara | Orange oil (sweet) |
| Ipecacuanha | Cod-liver oil | Quicksilver (seconds) |
| Lavender oil (Fr.) | Lead salts | Turpentine |
| Milk-sugar | Linseed | |
| Soda nitrate | Orris (Flor.) | |
| Strychnine | Peppermint oil (Amer.) | |
| Valerian | Tragacanth | |
| Wax, Carnauba | | |
| Zinc oxide | | |

## Cablegrams.

New York, August 31 :—Business in drugs is moderate. Opium is steady at $7.75 per lb. for druggists' by case lots. Peppermint oil in tins is firm at $2.90. Spearmint oil is advancing, $4 being quoted. Hydrastis is almost unobtainable, and the price is nominal at $4.50. Jalap has advanced to 35c., and cascara sagrada is steady at 9½c. Ipecacuanha is also steady at $2.10 for Cartagena.

Amsterdam, August 24 :—At the auction of cinchona held here to-day 12,754 packages were offered, of which 10,358 packages sold at an average unit of 3.14c. per half-kilo., against 3.22c. paid at the auction held on July 13. The following were the approximate quantities of quinine purchased by the principal factories : (1) The English and American factories, 10.204 kilos. ; (2) the Brunswick factory, 10,009 kilos. ; (3) the Mannheim factory, 9,982 kilos. ; (4) the Amsterdam factory, 4,222 kilos. ; (5) the Frankfort and Stuttgart factories, 7,202 kilos. ; (6) the Maarssen factory, 6,577 kilos. ; and various buyers, 10,463 kilos. The prices paid for the manufacturing bark ranged from 7½c. to 32¾c., and for druggists' bark from 9c. to 37c. per half-kilo. was paid. The coca-leaves sold at from 5c. to 63½c. per half-kilo. [The above telegram, which is referred to under our cinchona paragraph, was received after closing for press last week.]

## Java Cinchona.

At the annual meeting of the Anglo-Dutch Plantations of Java, Ltd. (one of the largest companies operating in the East), held in London on August 24, the Chairman, in the course of his speech, said : "During the last few years all cinchona estates have been experiencing an extremely difficult time owing to the low price the product has been realising in the market. Efforts are now being made which it is hoped will improve the market condition, and result in growers obtaining higher prices. While this is a matter in which we, as one of the largest private plantations in Java, would considerably benefit, still the question concerns other growers more vitally than it does us, for while other gardens are either closing down or cutting out their cinchona for the planting of other crops, finding its cultivation unprofitable, we, owing to the favourable conditions prevailing on our lands—namely, the low price at which we can produce the bark and the high percentage of quinine it contains—are enabled to reap a good profit at prices which spell disaster for our competitors."

## Linseed-oil Prospects.

In our editorial notes of August 19 (p. 48) referring to linseed-oil prospects, we dealt more particularly with the state of the American crop. Because of the growing uncertainty of the Northern American crops in the last few weeks the market is passing through a rather critical period. Lest too much stress should be laid on the official crop estimates as given in that issue of the *C. & D.*, the fresh reports which have since been received from independent trustworthy sources, as regards the United States crop, are of so serious a character as to justify further reference to the subject. The accuracy of the Government report as regards the increased area under cultivation has been seriously questioned. According to private estimates the area is placed at 2,200,000 acres, or one million acres less than estimated by the Washington authorities. On this basis the total yield computed at only 7 bushels per acre, against an average for seven years (excluding last season) of 9.7 bushels, would work out at only about 390,000 tons, compared with 572,500 tons as arrived at by the official report of August 9. It is thus argued by market experts that should the trade estimates turn out as correct as they were last season the Canadian crop will not only be well absorbed, but American crushers will have to resort once more to free importations, as the domestic crop would fall about 250,000 tons short of normal requirements. The Canadian crop, which was recently estimated at 200,000 tons, has since been reported to have suffered by frost. The Americans have lately restarted buying pretty freely both seed and oil for prompt shipment from European ports. This, coupled with the renewed upward movement in the American markets, is rather significant, although River Plate crop prospects are so far satisfactory.

## London Markets.

Aloes.—The arrivals comprise 100 boxes Curaçao.

Anise Oil, Star, remains very scarce on the spot, and it is doubtful if 5*s.* will buy "Red Ship" brand, business from second-hands having been done at 5*s.* 1½*d.* for single cases ; to arrive, business has recently been done at 4*s.* 5½*d.* to 4*s.* 4½*d.* c.i.f., but 4*s.* 6*d.* is the closing quotation.

Aniseed is rather dearer, 25*s.* 6*d.* per cwt. being required for good Russian.

Araroba.—A direct arrival of 14 cases has taken place in Liverpool from Bahia.

Arrowroot.—The Board of Trade have received from the Administrator of St. Vincent a copy of "The Arrowroot (New Market Fund) Ordinance, 1910" (No. 11 of 1910), which provides for the imposition of an additional duty of 6*d.* per barrel (not exceeding 200 lb. net.) of arrowroot exported from the Colony, with effect from December 1, 1910. An export duty of 6*d.* per 200 lb. is also levied on arrowroot under the provisions of Ordinance No. 12 of 1900.

Benzoin.—Since the auctions further sales of Sumatra have been made. The arrivals comprise a direct shipment of 19 cases Palembang and about 50 cases Sumatra.

Bergamot Oil remains firm and unaltered at 20*s.* 10*d.* per lb. c.i.f. for prompt shipment.

Buchu is quiet but firmly held at from 4*s.* 3*d.* to 4*s.* 6*d.* per lb. as to quality for short-broad, and for shipment from the Cape 4*s.* 2*d.* c.i.f. is quoted. It is stated that the five bales of longs which sold last week at 1*s.* 8*d.* to 1*s.* 9*d.* "subject," was not afterwards confirmed by the

owner. The *Kildonan Castle* from Cape Town has brought 10 packages, part long and part short-broad leaf.

Camphor (Crude).—On the spot small sales of China are reported at 155*s.* per cwt.

Canary-seed is dearer. Turkish is held for 46*s.*, and fair to good Morocco has been sold at 44*s.* to 45*s.* per quarter

Cantharides.—Russian flies, which are somewhat scarce, are offered at 2*s.* 11*d.* per lb. c.i.f.

Caraway-seed is firm at 22*s.* 6*d.* per cwt. for fair Dutch.

Cascara Sagrada has been in more demand, with business in ton lots, including two-year-old at 42*s.* 6*d.* on the spot.

Cassia Oil very quiet but steady at 3*s.* 7*d.* for 80 to 85 per cent., 3*s.* 6*d.* for 75 to 80 per cent., and 3*s.* 4*d.* for 70 to 75 per cent. on the spot; to arrive 70 to 75 per cent. has been sold at 3*s.* per lb. c.i.f.

Chamomiles.—There is no material change in values, the quotation for new Belgian of first pickings (which are mostly small in size) being 145*s.*, and for second pickings 120*s.* is quoted; old crop varies between 105*s.* and 115*s.*, as to colour. Arrivals aggregating about 200 bales have taken place this week.

Cinchona.—The quantity of "quinine in the bark" offered at Amsterdam last week was the largest so far recorded in any auction, it being equivalent to 74,048 kilos., or 163,248 lb.; of this 58,569 kilos. was sold and 15,389 kilos. bought in or withdrawn. There was a good demand, the average unit obtained being 3.14c. per half-kilo., against 3.22c. (=$\frac{9}{16}$*d.* per lb. London parity), or a decline of $2\frac{1}{2}$ per cent. Considering the quantity offered, the sale was very satisfactory.

Cinnamon.—At the quarterly public sales held last Monday 230 bales were catalogued, and of these only about 100 were sold at steady rates for worked and at $\frac{1}{2}$*d.* per lb. advance for unworked. Worked sold at 1*s.* 3*d.* to 1*s.* 5*d.* per lb. for fine to superior firsts; 1*s.* 4*d.* for superior seconds and 1*s.* 1*d.* to 1*s.* 2*d.* for good; fine thirds at 1*s.* 3*d.* and good 1*s.* to 1*s.* 1*d.*; fine fourths $11\frac{1}{2}$*d.*, fair to good 10*d.* to 11*d.*, and common 9*d.* per lb. Unworked firsts sold at $11\frac{1}{2}$*d.*; seconds were bought in at 11*d.* and thirds at $10\frac{1}{2}$*d.*; fourths sold at 9*d.* 130 bales *pieces* were bought in at $6\frac{1}{2}$*d.* per lb. 250 bags *chips* were held for 3*d.* per lb. for good bright, $2\frac{3}{4}$*d.* for dull, and $2\frac{3}{8}$*d.* for common.

Citric Acid is fully $\frac{1}{4}$*d.* per lb. dearer for foreign make, limited quantities of which are offered from second-hands at 1*s.* 4*d.*, makers being unwilling to sell in view of an advance in the price of citrate on the part of the Camera Agrumaria. English makers are practically in the same position, and although 1*s.* 4*d.* is quoted, it is regarded as a nominal figure and they have sold well ahead. Messrs. Howards still offer at 1*s.* 4*d.* in limited quantities.

Citronella Oil.—Sellers of Ceylon quote 1*s.* per lb. c.i.f. for September-October shipment, which is rather easier.

Cloves.—Nothing offered at auction, and privately business has been very quiet, with new-crop Zanzibar offering at lower prices in the terminal market, including sellers of July-September at $7\frac{3}{4}$*d.*; for arrival the value of August-October shipment is 6*d.*, and September-November $5\frac{7}{8}$*d.* c.i.f.

Cocoa-butter.—At auction 28 cases Brazilian, in bond, sold at from 1*s.* $5\frac{3}{4}$*d.* to 1*s.* $5\frac{7}{8}$*d.* per lb.

Cod-liver Oil.—From Bergen our correspondent writes that the market is quiet but firm at 113*s.* 6*d.* per barrel c.i.f. terms for finest non-congealing Lofoten oil. In London, agents mostly quote 115*s.* c.i.f.

Coriander-seed is steady at 16*s.* per cwt. for Morocco on the spot and 16*s.* 6*d.* for Russian.

Cream of Tartar is flat, with prices in buyers' favour; 98-per-cent. powder is obtainable at 91*s.* and 95-per-cent. at 89*s.* per cwt.

Cumin-seed is firm at 24*s.* to 25*s.* per cwt. for Morocco and 34*s.* for good quality Malta.

Dill-seed is scarce and dear at 16*s.* per cwt. for East Indian on the spot. Offers for shipment are not procurable, none having come into the Indian markets.

Ergot has been in more general demand, the business including spot sales of Russian at 4*s.* 6*d.* and 4*s.* 3*d.* for old; sales of Spanish have also been made for close at hand at 4*s.* 6*d.* net landed terms. Few offers are made from Spain, and with the U.S. buying in Hamburg, prices are very firm.

Fennel-seed is quoted 19*s.* 6*d.* per cwt. c.i.f. terms for Indian and 21*s.* for Turkish.

Fenugreek-seed is quiet at 8*s.* 6*d.* per cwt. for good Morocco.

Gamboge.—Twenty cases have arrived in the warehouse.

Guaiacum.—A direct arrival of ten casks has taken place from Hayti, the first for many months.

Gum Acacia is firmly held, the value of fair Soudan sorts being 50*s.* per cwt. on the spot, at which business is being done, and from Khartoum 48*s.* c.i.f. is quoted for inferior to the usual quality guaranteed. East Indian descriptions show no change; Aden gum is scarce and wanted, and Ghatti quiet. Senegal is very firm at 48*s.* per cwt. f.o.b. Bordeaux for Bas de Fleuve quality; crop is reported to be about half an average.

Iodine.—The following table shows the total exports of iodine from Iquique during the years 1907-10:

| Destination | 1907 | 1908 | 1909 | 1910 |
|---|---|---|---|---|
| | Quintals | Quintals | Quintals | Quintals |
| United Kingdom ... | 1,512 | 970 | 1,049 | 495.09 |
| Germany ... ... | 1,017 | 1,727 | 2,494 | 3,482.55 |
| United States ... | 1,603 | 1,050 | 1,714 | 2,125.50 |
| Chile (Valparaiso) | 6 | 5 | 3 | 7.45 |
| Total ... | 4,138 | 3,752 | 5,260 | 6,110.59 |

The exports from Japan during June 1911 were 1,125 kin, and for the six months they were: 1911, 7,839 kin; 1910, 5,873 kin; and 1909, 9,604 kin. The exports of potassium iodide from Japan during June 1911 were 4,734 kin, and for the six months they were 25,846 kin, against 33,779 kin in 1910 and 13,655 kin in 1909.

Ipecacuanha.—Dearer. Immediately after the auction last week the balance of the catalogues of Matto Grosso and Minas was cleared at the limits, and the first-hand quotation for Matto Grosso is now 9*s.* and Minas 8*s.*, Cartagena being quoted 8*s.* Next week 45 bales of so-called Johore will be offered. The s.s. *Asturias* from Monte-Video has brought 5 packages and the s.s. *Atrato* 19 packages from Savanilla. The bulk of this latter shipment (probably Cartagena) is in transit for Bremen; 16 bales (probably Minas) have arrived in Liverpool from Bahia, and will be offered in the London auction later. It is also stated that 3 cases of ipecacuanha cultivated on the Indian Government cinchona plantations are on the way to London. The stocks of ipecacuanha in the drug-warehouse on August 31 consisted of 23 Matto Grosso, 22 Minas, 33 Cartagena, and 54 Johore.

Lavender Oil.—As the result of drought and heat, French distillation is turning out poor, so much so that prices in several directions have advanced about 2*s.* per lb., and others do not care to quote as yet. From 11*s.* 6*d.* to 12*s.* per lb. is asked for finest quality. Other Grasse flower crops, such as jasmin, tuberose, etc., have also suffered, and very high prices are being paid to the growers by manufacturers of concrete essences.

Lemon-juice.—English raw is unobtainable, and quotation is nominal.

Lemon Oil is unaltered and moves off steadily, good brands offering on the spot at from 6*s.* to 6*s.* 3*d.*; new crop is quoted 5*s.* 2*d.* c.i.f., and prompt shipment at 6*s.* 2*d.* to 6*s.* 4*d.* c.i.f.

A Palermo advice dated August 26 reports that with a continual inquiry and the small supply available, higher prices have had to be paid, and spot oil is firmer. Foreign buyers continue to be interested in new crop, and a few contracts have been effected, as there is a considerable margin in favour of the new as compared with spot oil; for prompt shipment 6*s.* 6*d.* per lb. c.i.f. is quoted.

Lime-juice.—Arrivals of new crop are now taking place more freely from the West Indies, comprising 134 packages, 89 puns., 111 hhds., 10 casks from Dominica, and 8 puns. from Jamaica. This fact has brought out sellers of raw at 2*s.* per gal. for good quality.

Linseed is dearer at 75*s.* per quarter for Dutch and 72*s.* 6*d* for Morocco.

Menthol.—Quiet, the spot value of Kobayashi being 16*s.* 2*d.* and Suzuki 16*s.* Sales of Suzuki have been made at 15*s.* 6*d.* c.i.f. for stuff afloat, and at 14*s.* 7½d. for October-November shipment.

The exports from Japan during June amounted to 2,201 kin, valued at 17,930 yen. The six months' figures are as follows:

| | 1909 | 1910 | 1911 |
|---|---|---|---|
| Kin ... ... | 35,236 | 54,622 | 56 906 |
| Yen ... ... | 162,558 | 282 089 | 409,373 |

Milk-sugar.—The largest producers having sold out for some time ahead, the recent scarcity is becoming more acute, and for small lots on the spot from 57*s.* 6*d.* to 60*s.* has been paid. These present high prices, however, are regarded as temporary only, and before long more normal rates are expected to prevail.

Musk.—Tonquin pod has been in rather more inquiry, holders of blue skin pile I asking 67*s.* per oz. and old style 54*s.* to 55*s.* Russian Cabardine has been sold at 19*s.* and China, which is scarce, is worth about 25*s.* per oz.

Opium.—Although the easier tendency continues in primary markets as the result of inactivity, it is quite anticipated that when renewed buying takes place prices will quickly recover. Smyrna offers the usual 11½-per-cent. quality at 23*s.* per lb. c.i.f., and if a further break should occur advantage is likely to be taken of the fact to replenish stocks; on the spot 25*s.* is quoted for druggists'. In Persian opium spot sales have been made at 20*s.* for 9-per-cent. and 22*s.* for 10-per-cent.

A Smyrna correspondent writes on August 18 that the market is quiet, sales amounting to 19 cases. We are now about 6*d.* per lb. under our prices of last week; nevertheless, as large holders will not listen to any concession, we may shortly see an advance again to 25*s.* for extra selected old Karahissar. On the growing markets dealers are paying fully 10 per cent. to 15 per cent. over the figures operated upon by shippers on this and the Constantinople markets. The arrivals to date amount to 449 cases, against 2,349 cases at the same period last year.

Mr. Theodore C. Taylor, M.P., writes to "The Times" in reference to the telegram from their Pekin correspondent published in last week's *C. & D.* (p. 58), the burden of his complaint being that an attempt is being made by British opium merchants in Hong Kong to compel China to take Persian or Turkish opium or both, under cover of the treaty right by which China has been compelled so long to take Indian opium. He charges these Hong Kong opium merchants with trying to defeat the Indian Government precaution of specially marking all the opium sold for export to China, by openly claiming a right to force their purchases of foreign opium upon China as well.

Writing in regard to the commerce of Hong Kong during 1910, the American Consul states that China's efforts to restrict the opium trade have been successful in a marked degree in reducing the volume of the business at that port. In 1909 Hong Kong furnished 72 per cent. of the total imports of opium into China, and averaged about that proportion for the four previous years. The imports of opium from all sources into Hong Kong in 1910 were 4,919,040 lb., against 5,477,859 lb. in 1909. The total exports of opium from Hong Kong during the past three years were as follows, in lb.: 1908, 6,072,060; 1909, 5,515,960; and 1910, 4,560,419. The exports to China for the period were 5,591,004, 5,096,684, and 4,304,996 lb. respectively. It is possible that the restrictions upon the trade in opium in Kwangtung Province reduced the imports into this section of China to a greater extent than such imports have been reduced in other regions, though the figures for Customs duties paid for the portions of 1910 already returned agree in general features with the Hong Kong returns. It does not appear likely that the Hong Kong business interests concerned in this trade will allow it to disappear without a struggle. The Chinese authorities in several of the Provinces, notably in the Canton Province, have established restrictions and additional taxes on the trade, which have been and are the subject of sustained complaints on the part of Hong Kong dealers, voiced through the Hong Kong Chamber of Commerce, and there is evidence that every effort possible to save Hong Kong's trade in this drug will be made as opportunity is offered.

Orange Oil is inactive, and with a firm order in hand it might be possible in the primary markets to buy at slightly less than the highest figures quoted. Sweet is quoted at 8*s.* 3½*d.* per lb. c.i.f.

Orris.—The prices of Florentine and Verona are firmer to the extent of about 2*s.* 6*d.* per cwt., say from 41*s.* to 43*s.* 6*d.* for the former as to quality.

Otto of Rose.—The market remains unchanged, no new developments having taken place to assist buyers, consequently business is confined to quite retail lots, and prices for the leading brands range from 45*s.* to 52*s.* 7*d.* per English oz.

Pepper is firm, with fair Singapore offering at 5¼*d.* spot; for September-November shipment 5 5/16*d.* has been paid; *white* Singapore pepper is dearer, with sales at 8*d.* to 8⅛*d.*, fair Siam at 7⅞*d.*, and buyers; for arrival Singapore for October-December shipment has been sold at 7 5/16*d.* to 8*d.* c.i.f.

Peppermint Oil is 3*d.* per lb. dearer for American tin oil, the lowest quotation for recognised brands being from 12*s.* 9*d.* to 13*s.* 3*d.* per lb. This fact has led to business from second-hands at 12*s.* 6*d.*, but it is doubtful if any more is obtainable at this figure; for H.G.H. 15*s.* 6*d.* is required. Japanese is quoted at 6*s.* 3*d.* for Suzuki and 6*s.* 6*d.* for Kobayashi on the spot, and for August-October shipment 5*s.* 6*d.* has been paid for Kobayashi and 5*s.* 4½*d.* for Suzuki for October-December shipment.

The exports from Japan during June amounted to 2,385 kin, valued at 8,940 yen. During the six months ending June the exports have been as follows:

| | 1909 | 1910 | 1911 |
|---|---|---|---|
| Kin ... ... | 86,384 | 86,285 | 76,349 |
| Yen ... ... | 244,404 | 263,840 | 255,672 |

Quicksilver.—While the first-hand quotations remain unaltered at 9*l.* per bottle, second-hands has continued to crumble further, to the extent of about 2*s.* on the week, closing at 8*l.* 12*s.*

Quinine is steady, with Java selling in small lots for consumption at 6¾*d.*, Amsterdam at 7*d.*, and German 7*d.* to 7¼*d.*, the latter price being for recent make.

The exports of quinine sulphate from Java during 1910 amounted to 1,533,200 oz., against 1,244,800 oz. in 1909 and 710,000 oz. in 1908.

Rhubarb.—A few sales ex auction of medium and bold size Shensi with three-quarters dullish pinky fracture, have been made at 1*s.* 9*d.*, and flat bold and medium size at 1*s.* 9*d.* also; fair flat medium size High-dried has been sold at 10*d.*; to arrive, recent sales include flat High-dried at 8¼*d.*, and rough round at 6½*d.* per lb. c.i.f. terms.

Sarsaparilla.—The arrivals in the drug-warehouse comprise 12 bales Lima-Jamaica, about 12 bales red Native and two bales grey Jamaica.

Scammony-root.—An arrival of 180 bags has taken place *viâ* New York, probably Mexican description.

Senega.—The spot price remains steady at 2*s.* 4*d.* net; and to arrive one leading interest has nothing to offer; in fact very little new crop has been sold this year as compared with previous seasons, this pointing to a falling off in consumption.

Shellac remains quiet, with small sales on a basis of 62*s.* per cwt. for fair TN orange, and for arrival August-September shipment has been sold at 60*s.* and January-February at 63*s.* c.i.f. Futures are steady.

Soda Nitrate.—Refined has advanced 2*s.* 6*d.* per ton to 10*l.* 10*s.*, and ordinary is unaltered at 10*l.* 2*s.* 6*d.*

Spike Oil.—The value of new French ready for delivery August-September is about 3*s.* per lb. It is expected that the outturn will be satisfactory this season.

Strychnine.—Both the English and Continental makers have advanced their prices by 2*d.* per oz. for B.P. crystals and powder; and now quote 2*s.* 1*d.* and 2*s.* 0½*d.* per oz. respectively. The salts have also been advanced from 1½*d.* to 3*d.* per oz., and are as follows: Acetate, 2*s.* 2*d.*, arseniate 2*s.* 0½*d.*, bisulphate 1*s.* 8*d.*, citrate 2*s.* 2½*d.*, hydriodid 3*s.* 2½*d.*, hydrobromide 2*s.* 2½*d.*, hydrochlor. B.P. 1*s.* 10½*d.*, hypophosphate 3*s.* 9*d.*, nitrate 1*s.* 9½*d.*, phosphate 2*s.* 5*d.*, and sulphate 1*s.* 10*d.* per oz., all net; 100-oz. lots are subject to a reduction of ½*d.* per oz. *Hulle's* strychnine has also been advanced, the quotation for crys-

tals in 1-oz. bottles being 2*s.* 2*d.* net, and soluble in 1-oz. bottles 1*s.* 10*d.* net. There has been a considerable increase in the demand, especially on the Continent.

Tartaric Acid is very firm and in good demand, foreign offering at 1*s.* 0¾*d.* and English at 1*s.* 1¾*d.* per lb.

Tragacanth.—A considerable quantity has been sold for export, mainly to U.S.A., and the market shows signs of advancing; grades between 15*l.* 10*s.* and 16*l.* have been in good demand.

Turpentine, after a series of slight fluctuations, closes cheaper on balance at 38*s.* 9*d.* per cwt. for American on the spot and at 39*s.* for September-December delivery.

Valerian is difficult to obtain, and to arrive the extreme figure of 60*s.* per cwt. c.i.f. is quoted. This price is regarded as speculative, as new crop is not yet available.

Wax (Carnauba) is dearer, with spot sales of waxy grey at from 165*s.* to 170*s.* per cent., but higher prices are now wanted.

Wax (Japanese).—For September-October shipment the sales include 100 cases at 38*s.* 6*d.* c.i.f.; spot price is 40*s.*

Zinc Oxide has been advanced by 25*s.* per ton, the quotation for "Green seal" being 32*l.* 5*s.* on the spot, and "Red seal" 50*s.* per ton less, less 2½ per cent. discount in ton lots.

## Manchester Chemical Market.

*August* 29.

With the settlement of the railway workers' strike there is now more movement, and the streets are beginning to present a normal appearance so far as traffic is concerned. It will, however, take some time to work off arrears, and, meantime, the leading chemical firms are still unable to guarantee deliveries. In some cases prices are quite nominal in character. Sulphate of copper is quiet at about 19*l.* 10*s.* to 19*l.* 12*s.* 6*d.* per ton for best brands delivered Manchester. Glauber salts quiet at 42*s.* 6*d.*; Epsom salts 60*s.* per ton in bags, and 65*s.* to 80*s.*, according to package on export account. Black oxide of manganese, 94 per cent., 28*l.* to 30*l.*; 85-87 per cent., 6*l.*; 80-85 per cent., 5*l.* 10*s.*; 70 per cent., 5*l.* 5*s.*; and 60 per cent., 4*l.* 5*s.* per ton. White powdered arsenic is slow at 10*l.* to 10*l.* 5*s.* per ton delivered here. Miscible naphtha is 2*s.* 9*d.* to 2*s.* 10*d.* per gal., and solvent wood (white colourless), 2*s.* 10*d.* per gal. Yellow prussiate of potash, 4¾*d.* to 4⅝*d.* per lb. Recovered sulphur is firm at 4*l.* 17*s.* 6*d.* to 5*l.* 2*s.* 6*d.* per ton on rails. Sulphate of ammonia firm, but there is only a limited business passing on spot: the quotation on rails Manchester is 13*l.* 15*s.* per ton. Pitch is 7*s.* 6*d.* per ton higher.

## Heavy Chemicals.

The general demand in the heavy-chemical market is rather on the quiet side, though there is an improvement to be reported as compared with a little time ago. Export demand is fairly satisfactory. Values, generally speaking, rule on the steady side, without much fluctuation.

Sulphate of Ammonia.—The tone of this market continues very firm, though probably there is a decrease in actual business which is being put through, as buyers are averse to the payment of present figures, which are as follows: Beckton, prompt, 25 per cent. ammonia guaranteed, 13*l.* 15*s.*; London terms, prompt, 13*l.* 12*s.* 6*d.*; Leith, 14*l.* 7*s.* 6*d.*; Liverpool, 14*l.* 2*s.* 6*d.* to 14*l.* 5*s.*; and Hull, 14*l.* 2*s.* 6*d.* For delivery October-December 2*s.* 6*d.* to 5*s.* per ton premium is being asked, but there is not much being done.

Lead Products are firmer, and there is a good average demand. White lead 18*l.* 5*s.* to 18*l.* 10*s.*, and red lead 16*l.* 10*s.* to 16*l.* 15*s.* per ton Tyne. White acetate of lead 23*l.* 10*s.* to 24*l.*, and brown acetate of lead 19*l.* to 19*l.* 10*s.* Nitrate of lead 25*l.* to 25*l.* 10*s.*, all per ton, less 2½ per cent.

## Spanish Glycerin.

The July report of the British Chamber of Commerce for Spain states that the production of glycerin in that country in 1910 amounted to about 2,500,000 kilos., of which 1,500,000 kilos. were obtained from candle-lye and 1,000,000 kilos. from soap-lye. The number of distilleries is about fifteen. The most important centres of production are Madrid and Barcelona, followed by Bilbao, San Sebastian, and Seville. A large part of the production is consumed in Spain and the rest exported, mostly in a crude state, chiefly to the Netherlands, the United Kingdom, Germany, and the United States. In 1910 the total exports amounted to 893,760 kilos., as against 1,043,467 kilos. in the previous year. Of the exports in 1909, 521,374 kilos. went to the Netherlands and 150,707 kilos. to the United Kingdom.

# Correspondence

## Memoranda for Correspondents.

**All communications must be accompanied by the names and addresses of the writers, otherwise they cannot be dealt with.**

**Queries by subscribers on dispensing, legal, and miscellaneous subjects connected with the business are replied to in these columns if they are considered to be of general interest.**

**Letters submitted for publication (if suitable) should be written on one side of the paper only. Their publication in "The Chemist and Druggist" does not imply Editorial agreement with the opinions expressed.**

### A Territorial Compounder's Experience.

Sir,—Having just returned from camp with a field ambulance unit of the Royal Army Medical Corps, I thought perhaps a glimpse into the life of a compounder may be interesting. As compounder, one is appointed to the rank of sergeant, and really obtains a good experience into Army methods, which, although to many may seem inefficient, are extremely thorough and interesting, as well as educational. The work is small in amount, and although that depends upon the size of the brigade, my impression is that Territorials are by no means malingerers. Parades for the sick are at 9 A.M. and 6 P.M., and usually last about an hour, so that duty is not as long as the usual hospital or pharmacy work, which mostly lasts all day. The rest of the time is entirely at one's disposal for recreation, and considering that in the sergeants' mess there is an abundant supply of books, periodicals, and games, as well as a piano, time need not hang heavily. My reason for joining the unit to which I am attached is that ample instruction is given in first-aid work, which I consider is useful to every chemist. The food is good and plentiful, the status one which no "brother pill" can be ashamed of, the education what cannot be obtained elsewhere, and a real change of life amply compensated by payment according to Army scale. In my spare moments I turned out some verses relating to a famous Army pill which—considering that constipation, caused through change of habits, life, air, and food, is the cause of so many feeling unwell—is really useful, therefore much used. Among rank and file its popularity is evident. The pill is composed of hyd. subchlor., p. rhei co., ext. coloc. co., of each gr. ij. The following is a sample verse and chorus which could be appropriately sung at smoking-concerts in camp:

You may talk about your Beecham's,
Or your famous chlorodyne;
I've a pill, boys, it's a champion,
And its name is "No. 9."

*Chorus.*

If you're suffering from a gumboil
Or a dislocated spine,
I can cure you in a moment
With a dose of "No. 9."

Yours faithfully,
William C. Abbott,
Sergt. Compounder, R.A.M.C. (T.).

### The National Insurance Bill.

Sir.—Mr. J. Wilson asks for reliable statistics from Friendly Societies showing the number of prescriptions dispensed in proportion to membership (*C. & D.* August 26, index folio 364). I am dispenser in a country practice which comprises 503 members of Friendly Societies, and find that the number of prescriptions dispensed in an average year is 2,225. As the lame, halt, and blind are to be insured under the Bill the number of prescriptions will increase, and we may safely assume that the number to be dispensed for each insured person will average six.

Yours, etc.,
An Apothecary's Assistant. (140/71).

Sir,—Please allow me a little space in your estimable paper to reply to and, if possible, stand by "Apothecary's Assistant" to the best of my ability. There is no doubt about the fact that the majority of dispensers have been

as well educated as the majority of chemists, and I think I may say that the training which they undergo in order to become proficient in their profession is much more strenuous than that of a pharmacist, if we refer to their papers on dispensing; and, after all, is not dispensing a Hall man's business? I think your correspondent might go further and say that every dispensary under the new Bill should have a Hall man on the premises, and so allow the pharmacists to devote their useful knowledge to pharmacy proper. Without doubt the time has now arrived for Hall men to stand by each other like brothers or go to the wall. I saw, some months ago, a gentleman in the Brighton and Hove district advertising for all with the Hall qualification in that vicinity to communicate with him for their mutual benefit. Why is not this movement now carried on and made general? Surely, if a mechanic can have a union, a dispenser can have a society of some sort? Again, with reference to the dispensership on liners which is being proposed, what would happen to the two or three thousand souls aboard one of these leviathans if the medical man himself fell sick or was washed overboard? Both events are probable. Why, for the first few days of a voyage, fully two-thirds of the passengers may be incapacitated by sea-sickness. Here, then, the dispenser could step in, and he would be able to carry things on either till a fresh port was made and another doctor shipped or till the medico recovered. It should certainly be made compulsory for liners to carry dispensers. And who more suited for it than a Hall man? The companies, of course, would not pay a high wage, probably not sufficient for a pharmacist, as witness your extract from the "Liverpool Journal of Commerce." Now what other result than a beneficial one could this have upon the profession at large? It would enable many men to find more satisfactory berths and thus relieve a lot of the present-day pressure. Yours faithfully,

Rural. (144/25.)

### Refilling Empty Embossed Bottles.

Sir,—Through the *C. & D.* allow me to put before the members of the trade the following notice the traders of Belfast have received. This notice not only refers to traders in Belfast but traders all over the Kingdom, and it would not be surprising to know, if legal advice were obtained on the point, that as long as a person purchases a bottle he can do what he likes with it. This notice leaves us at present in the position of knowing not how to act in the matter. What say our cross-Channel brethren? Have any of them ever got reminders like this? If so, their advice will be very useful just now.

Truly yours,

Shankill. (113/69.)

Belfast Bottle Exchange, Ltd.

Bottle Clearing House, 110 Joy Street; registered office, Granville Buildings, 43A High Street, Belfast.

*Cautionary Notice.*

It has been brought to our notice that it is becoming the custom of chemists, druggists, and other traders to use mineral-water and "black" bottles for sending out various goods, such as turpentine, etc. We hereby caution you against filling or using for any purpose any bottles, syphons, boxes, cases, or packages of any description, bearing the embossed or branded names, trade-marks, or trade-description of any of the members of this Association, and in the event of your doing so, we will, if apprised of the fact of such use, proceed against you under the provisions of the Merchandise-marks Act of 1887, or otherwise as we may be advised, and will rely on this notice in support thereof.

Belfast Bottle Exchange, Ltd.,
George Ferris, Secretary.

P.S.—We are also authorised to protect the bottles and other property of Liverpool and Dublin manufacturers, and our inspector will report to owners of bottles in England and Scotland any instances of illegal filling which he may detect.

[For legal advice on this matter see the *C. & D. Diary*, p. 464, under Merchandise-marks Acts.—Editor *C. & D.*]

### Formula on Label.

Sir,—I have waited to see if any abler pen than mine would take up the subject of the sale of proprietary medicines as discussed at the British Pharmaceutical Conference. I have read through the report, but I have failed to find any suggestion of how it is proposed to hit the palpable frauds and yet not touch the proprietary articles which figure so largely on the chemist's counter. I should think there is no chemist in the United Kingdom who has not one or two proprietary medicines of his own, the formula for which he has devised or improved after much labour. These he naturally values and, in some cases, takes extraordinary precautions to prevent the formula from becoming known to his assistants. Yet I see it is coolly suggested that he should place the formula on the label. If it is really the view of chemists that they would rather not have their own proprietary articles, it would be better to withdraw them from sale now, especially if the transaction as at present conducted is, according to some people, immoral. Is it that the British Pharmaceutical Conference does not represent the retail chemist? I must confess I do not understand the position. Why should chemists come forward with a suggestion which is designed to destroy part of their property, and why in the world should the pharmacist occupy the position of the cat to the monkey, and pull the doctor's chestnuts out of the fire? I notice that the Trade Section meeting was well attended, but I wonder what proportion the speakers bore to the attendance, and how many of those who spoke are working-class retailers? Perhaps it would have been more interesting to have heard what the silent members thought of it all. I cannot help thinking that there is a good deal of hypocrisy about this matter. Yours truly,

Rimmon. (91/19.)

### Are Examinations Needed?

Sir,—Referring to "Xrayser H.'s" remarks on education (*C. & D.*, August 19, index folio 319), I would ask, as a member of the trade with an eye to the profit side of pharmacy, where is the pecuniary reward for so academic a Preliminary examination and so searchingly technical a Minor? Is it to be from the sale of drugs, chemicals, and patent medicines which are sold at cut-rates by grocers, companies, and hucksters generally? Is it in dispensing? The doctors do their dispensing in my town. Is it in prescribing? The National Insurance Bill will probably destroy that source! Is it through the chemist's own personality? Many businesses are successfully carried on in which the proprietor is never seen. Then what is our embryo pharmacist to rely upon for profits; and, in fact, what stable pharmacy business is there really in existence which is not preyed upon by numerous other trades to a very large degree? Now, since there is no protection to the trade, why should pharmacy be considered worth the trouble, worry, and expense entailed in the examinations? From the practical standpoint it would appear to pay better to throw over the idea of examinations and carry on a drug-store, since the only loss of trade would be comprised in a dozen or so of scheduled poisons, the majority of which are not "assets" in commerce at all. Some are employed in the little-used dispensing department, which in my experience has been nothing but a mockery. The only other justification for the examinations is the protection of the public at cut-prices, and this imports into the trade a proportion of philanthropy perhaps equal to the profit, the latter of which is undoubtedly a primary reason for entering the trade at all. Here are some examples which one meets with in practice. A man came to me the other day with a prescription—6 oz., tablespoonfuls: "Would I make it up for him for 6*d.*"—the price he pays at a neighbouring "company" shop. A woman comes in for 1 lb. carbonate of soda. She gets it at the company shop and the grocers for 2*d.* Alum 1*d.* per lb. ditto, ditto, and so on *ad nauseam*. Professionalism has no leg to stand upon, and drug-stores are opening steadily all over the country. Yours faithfully,

Nomen. (139/24.)

## Subscribers' Symposium.

**For questions, answers, incidents, and interchange of opinions among "C. & D." readers.**

*Too Good for Words.*

A subscriber at Dinard, France, writes on July 31, 1911: "It seems silly to try to express appreciation of The Chemist and Druggist, it's quite beyond praise."—(116/14.)

*Dental Chemists.*

Mr. Benson Harries, Newport, member of the Council of the Chemists' Dental Society, writes to say that he will be in

the Secretary's office at the Dental Exhibition, Colston Hall, Bristol on September 7, at 3.30 P.M., and will be glad to meet any dental chemists who may be there for an informal chat regarding the work of the newly formed Chemists' Dental Society.

*Phonograph-cylinder Wax.*

*F. S.* (119/69) writes: "I wish to thank you for your reply to my query *re* phonograph waxes. Since then I have found a wax which in itself appears to be the thing. I have only just got a sample—it is called Californian wax or Colorado wax, the donor of sample is not sure which. The wax appears to resemble bitumen very closely, it is brittle, takes a high polish, has a high congealing-point and a very slight greasiness."

*Newfoundland Cod-liver Oil.*

Mr. W. Bousfield's remarks on this subject in the *C. & D.*, August 26, index folio 365, do not quite represent what he intended to convey. Having appointed an expert in the manufacture of cod-liver oil, the Government now require to engage an expert in the preparation and drying of "stock fish," which is of even greater importance than the manufacture of cod-liver oil. The remarks as to the moist and foggy atmosphere of Newfoundland referred to the curing and drying of "stock fish."

## Legal Queries.

**Consult the Legal Advice Section of "The Chemists' and Druggists Diary," 1911, p. 435, before writing about your difficulty.**

*H. J. S.* (143/51).—"Pectoral Mixture" is not a dutiable title, and your label does not make your preparation liable to medicine-stamp duty.

*Sanol* (28/8).—The use of industrial spirit is only granted for specific purposes; it is not permissible afterwards to add perfumes to hide the odour of the spirit.

*R. P. A.* (136/71).—As the household ammonia which you put up contains over 10 per cent. of ammonia it will require, in February next, to be labelled "Poisonous."

*F. W. G.* (137/5).—INCOME-TAX.—You are bound to make a return before September 30 if you wish to obtain the benefit of paying 9*d.* in the £ on your earned income.

*F. C. C.* (138/63).—The sale of mineral acids and ammonia is not confined to registered chemists, but the labelling provisions of the Poisons and Pharmacy Act apply to all retailers of these substances.

*W. H. L.* (135/46).—It might very well be argued that the word "Poison" on a label includes the lesser term "poisonous," but in view of the explicit terms of the Poisons and Pharmacy Act, 1908, it is as well to use the correct word for "third" schedule poisons.

*H. L.* (132/55).—Neither the title nor the carton of the proprietary article is distinctive enough for registration-purposes. It would be better to invent a new name for the article and register this in the manner set forth in *The Chemists' and Druggists' Diary.*

*Gamboge* (140/3).—CONSULTING-CHEMIST does not generally bear the interpretation of medical consultation which you place upon it. In England the announcement of consultation hours would bring the party into conflict with the Apothecaries Act if he diagnosed disease and supplied a medicinal remedy.

*H. K. J.* (137/13).—TENANCY AGREEMENT.—The letter you send would operate as a binding agreement for tenancy of the premises, although some of the terms are not expressed. The stamp-duty of 10*s.* is correct. As the Inland Revenue have allowed the instrument to be stamped we do not think you need trouble about the matter.

*A. R. C.* (143/34).—(1) Any licensed retailer of methylated spirits may sell the spirits to other licensed retailers in not more than 4 gals. at one time. See *C. & D. Diary*, p. 456. (2) The condition regarding the sale of methylated spirits on Sunday is that the spirits shall not be sold between Saturday at 10 P.M. and the following Monday at 8 A.M. Bank holidays are not specifically mentioned. (3) Eau de Cologne and perfumes may be sold on Sundays.

## Miscellaneous Inquiries.

**We do not as a rule repeat information given in this section during the past twelve months. When references are given to past issues, these should be consulted. Back numbers for the past five years can generally be obtained from our office at the published prices. We do not undertake to analyse and report upon proprietary articles.**

*F. B.* (Malta) (129/65).—EXCESSIVE ACIDITY OF STOMACH.—In the treatment of this condition diet plays an important part. Plenty of meat and eggs should be used, while starchy and sugary food should be reduced to a minimum. Mental and bodily rest for an hour after a principal meal should be insisted on. Fruit may be taken in moderation. About the time the discomfort is felt a full dose of sodium bicarbonate should be taken. If these measures are not successful, tincture of belladonna in 5 to 10 minim doses may be given, as this is said to be most effective in inhibiting excessive gastric secretion. Large meals should never be taken, and there should be no nibbling between meals, and no alcohol.

*J. D.* (118/6).—(1)—POWDER FOR COUGH IN HORSES.—The following is on the same lines as the sample you send:

| | |
|---|---|
| Pulv. digitalis ... ... ... | ʒss. |
| Pulv. belladonnæ ... ... ... | ʒj. |
| Potass. chlorat. ... ... ... | ʒj. |
| Potass. nitrat. ... ... ... | ʒj. |
| Pulv. opii ... ... ... ... | ʒss. |
| Pulv. glycyrrhizæ ... ... ... | ʒiv. |

M. ft. pulv. Omni nocte c. cibo.

(2) GREASE IN HORSES.—The liquid you send is formalin; you do not state how it is employed.

*W. R. W.* (131/25).—BRILLIANTINE.—The best arachis oil answers fairly well in a separable brilliantine; it can be coloured with oil-soluble chlorophyll. The perfume is best added to the alcoholic portion as a triple-essence. Several synthetic perfumes are also suitable, such as heliotropin and vanillin.

*J. E. C.* (125/32).—POWDER FOR WASTING CATTLE.—This appears to be of a tonic nature, and is represented by the following:

| | |
|---|---|
| Sodium hyposulphite ... ... | ʒss. |
| Potassium nitrate ... ... ... | ʒss. |
| Powdered ginger ... ... ... | ʒiij. |
| Powdered nux vomica ... ... | ʒj. |
| Powdered gentian ... ... ... | ʒss. |

Mix to form a powder. One powder to be administered once a day in treacle and water or gruel.

*Sanol* (26/8).—SKIN-CREAM with soft paraffin basis.—The following have been previously published in the *C. & D.*:

| 1. | | 2. | |
|---|---|---|---|
| White wax, Spermaceti ... | aa. ʒiss. | Soft paraffin ... ... | ʒvij. |
| Soft paraffin ... ... | ʒix. | Hard paraffin ... ... | ʒss. |
| Witch-hazel spirit ... | ʒiij. | Lanolin ... ... ... | ʒij. |
| | | Rose-water ... ... | ʒiij. |
| | | Simple tincture of benzoin ... ... | ʒij. |
| | | Borax ... ... ... | ʒss. |

*Amylum* (129/22).—The identification of the starch you send is not of general interest, and therefore does not come within the scope of these columns.

*Inkpot* (134/11).—(1) UNCAKEABLE SALT.—The powder which is added to salt in the proportion of 4 per cent. with a view to prevent caking, assist the digestion, and form muscle, is calcium phosphate. (2) STOVE-POLISH.—To prevent dust arising when polishing a stove the paste should contain a small amount of glycerin, molasses, or oleic acid.

*A. E.* (137/64).—WELDING IRON.—The powder you send is a mixture of boric acid and borax. You will find the subject dealt with in *The Chemists' and Druggists' Diary*, 1908, p. 214, where alternative formulæ are given.

*H. G. C.* (137/57).—ASTRINGENT HAIR-LOTION.—The following, known as Gessner's lotion, is of the type you require:

| | |
|---|---|
| Resorcin ... ... ... ... | ʒiij. |
| Chloral hydrate ... ... ... | ʒiv. |
| Tannic acid ... ... ... ... | ʒiv. |
| Simple tincture of benzoin ... | ʒj. |
| Castor oil ... ... ... ... | ʒiv. |
| Spirit, to make ... ... ... | ʒxiv. |

Apply once a day to the roots of the hair.

*Aq. Lavand.* (135/52).—The proportion of ol. lavand. you use is ample, but we should be inclined to diminish the quantities of the essences of ambergris and musk. Care should be taken to employ a spirit specially purified for use in perfumery, and the aq. lavand. should stand at least a month before filtering.

*Nemo* (135/50).—POWDER FOR WORMS ON LAWNS.—We cannot carry the analysis any further than you have done.

*Pharmacist* (134/31).—EXSICCATING CHEMICALS.—We do not remember a book giving the exact details you require, but the following data will enable you to calculate the loss of water on drying the chemicals named: Sodium sulphate contains 55.9 per cent. of water of crystallisation; magnesium

sulphate 51.13 per cent.; copper sulphate 36.1 per cent.; iron sulphate 45.32 per cent.; alum 45.5 per cent.

*Salt* (134/6).—Water is the cheapest and best chemical for removing salt from the walls and floor of a cellar.

*C. M.* (135/47).—Perfume for Skin-cream.—The formulæ given in the *C. & D.*, April 22, index folio 592, seem to meet your requirements, although they do not possibly match the scent of the card you send.

*A. G. V.* (Turkey).—Stevenson & Howell's "Aërated Beverages and Cordials" contains a chapter on the manufacture of wines from essences, and some formulæ for wine-essences are contained in "Pharmaceutical Formulas."

*R. & Co.* (140/66).—The piebald effect in the moustache is best treated by hair-dyes. There is no way of influencing the colour of the hair at the roots.

*Wasps* (132/49).—The note on methods of destroying wasps which we published in the *C. & D.*, August 19, index folio 323, supplies the information you require.

*Brecknock* (131/59).—Solid Sulphuric Acid for batteries is made by mixing the liquid acid with kieselguhr or sodium bisulphate. In the case of sodium bisulphate the melted salt is heated with sulphuric acid in a vacuum vessel, and the finished product contains about three-fourths of its weight of the acid.

*E. M. S.* (122/39).—Books on Poultry-farming.—Among the many books on this subject are the following: Wright and Ludlow's "New Book of Poultry" (Cassell, 21*s.*); Wright's "Practical Poultry-keeper" (Cassell, 3*s.* 6*d.*); Wilson's "Poultry-keeping and How to Make it Pay" (Pearson, 1*s.*); Bacon's "Guide to Success in Poultry-keeping" (Bacon, 1*s.*).

*Vieux* (132/14).—(1) Unguentum Styracis.—The following are official formulas for this ointment:

| | French Codex | Belgian Ph. | Swiss Ph. |
|---|---|---|---|
| Liquid storax ... | 100 | 150 | 30 |
| Olive oil ... ... | 150 | 250 | 45 |
| Elemi ... ... | 100 | 150 | 5 |
| Yellow wax ... | 100 | 150 | 15 |
| Resin ... ... | 180 | — | 5 |
| Venice turpentine | — | 30 | — |

(2) Unguentum Ferri Peroxidi Hydrati.—This is used for chilblains:

| | |
|---|---|
| Levigated red bole ... ... ... | 25 parts |
| Hydrated oxide of iron ... ... | 50 parts |
| Venice turpentine ... ... ... | 50 parts |
| Suet, Lard ... ... ... of each | 435 parts |
| Lavender oil ... ... ... ... | 5 parts |

*Silent* (Bombay) (123/27).—(1) Iodised Sarsaparilla.—

| | |
|---|---|
| Potass. chloratis ... ... ... | 5j. |
| Potass. iodidi ... ... ... | 3ss. |
| Dec. sarsæ co. conc. ... ... | 3j. |
| Sp. chlorof. ... ... ... ... | 3ss. |
| Aquam ad ... ... ... ... | 3vj. |

Dose: One tablespoonful to be taken three times a day in water.

(2) Children's Digestive Tonic.—

| | |
|---|---|
| Syr. ferri phosph. co., Ext. bynes liq. ... ... | aa. partes æquales. |

Dose: One or two teaspoonfuls three times a day.

(3) Cough-pills.—

| | |
|---|---|
| Saponis hispan. ... ... ... | 3x. |
| Ext. opii ... ... ... ... | 3iv. |
| Ol. anisi ... ... ... ... | 3ij. |
| Antim. tart. ... ... ... ... | 3ss. |
| Pulv. ipecac. ... ... ... | 3vj. |
| Pulv. scillæ ... ... ... ... | 3v. |
| Pulv. glycyrrh. ... ... ... | lb. ij. |
| Aquæ ... ... ... ... | q.s. |

Divide into 4-grain pills.

(4) Asthma-mixture.—

| | |
|---|---|
| Potass. iodidi ... ... ... | 5j. |
| Ammon. carb. ... ... ... | 3iss. |
| Tinct. lobel. æther. ... ... ... | 3ij. |
| Vin. ipecac. ... ... ... | 3iss. |
| Aq. chlorof. ad ... ... ... | 3viij. |

Dose: One tablespoonful in a wineglass of water every four hours.

(5) Insect-powder.—See *C. & D.*, May 6, index folio 685.

*F. E. B.* (134/28).—Silvering Glass.—There are various processes for this—*e.g.*, Liebig's method as given in "Pharmaceutical Formulas." The following is Edel's process—one of the most recent: Two solutions are prepared, a silvering liquid (1), and a reducing liquid (2). No. 1 is made by dissolving silver nitrate 30 grams in distilled water 240 grams, and treating with ammonia until the precipitate at first formed is redissolved, then filtering bright and making up to 480 c.c. with water. No. 2 solution is obtained by dissolving potassium sodium tartrate 0.75 gram in water 300 grams and boiling. Next add silver nitrate 0.166 gram and boil for from ten to fifteen minutes until grey. After filtration make up to 480 c.c. with water. For use, 30 c.c. of each solution is mixed diluted with 120 c.c. of water and poured over the surface of the glass to be silvered. In about an hour the whole of the silver will be deposited, the glass being rinsed in water, set up on edge to dry, and finally backed with a protective coating of asphalt varnish.

*A. C. B.* (136/14).—Rheumatism-powder.—We think the sample you send is the Pistoia gout-powder which emanates from a Benedictine monastery in Italy. An analysis by Chastaing, which is given in "Pharmaceutical Formulas," is usually accepted as producing a similar product, but it is impossible to analyse accurately mixtures of vegetable powders.

*Nepenthe* (140/3).—Floor-polish.—A good recipe for this was published in the *C. & D.*, April 15, index folio 559. If this is not suitable, give us further particulars of your requirements.

*Queenstown* (141/22).—Repairing Hot-water Bottles.—The patches are affixed by rubber solution, and afterwards vulcanised in a similar manner to that employed for repairing motor-car tyres. Portable vulcanisers are sold, but as a rule the number of repairs to hot-water bottles which a retail chemist is required to do is not sufficient to make it worth while to carry out the process at home.

*C. H. T.* (143/40).—We do not undertake the analysis of proprietary articles.

*H. S.* (138/35).—Book on Dutch Language.—Valette's "Dutch Conversation-Grammar" (Groos, 5*s.*) is a text-book on Dutch which can be recommended. The pronunciation is dealt with at the commencement.

## Retrospect of Fifty Years Ago.

**Reprinted from "The Chemist and Druggist," September 15, 1861.**

### Observations.

The right to prescribe is, and in the present state of the law—whose glorious uncertainty is so well known—must continue to be, a subject of the deepest interest to our readers. Where judges differ, as they appear to on this subject, it will readily be imagined how difficult a task it must be to form and give an opinion. We are not prepared to say anything on the law at present, but it is our intention to go very fully into the matter, and meantime any information will be acceptable.

We may state that, as it is our intention to take the best legal opinions on the law of the subject, particulars of any cases which have been tried will be of great assistance. The trial alluded to by our correspondent "A. B." will be found reported in another portion of our circular. "L. O.'s" letter on Early Closing, though not directly accusing us of neglecting the question, insinuates as much. Now, if our correspondent will look over the back numbers of The Chemist and Druggist, he will find articles and suggestions continually emanating from us during the last year.

Tho only suggestion that seemed to meet the wishes of our readers was one advocating the formation of a society, that should not only take action on the earlier closing question, but also use its organisation for such other purposes as might arise from time to time. The United Society of Chemists and Druggists resulted from our efforts, and we think that the remarks of "J. O." should be addressed to its officers. Our own opinion, however, is that the limited success of the United and Pharmaceutical Societies, and their consequent want of power to carry out any really useful legislation, is caused by the apathy of the trade. "God helps those who help themselves," and with the exception of a very small minority, the chemists and druggists of this kingdom prefer blindly trusting in Providence to putting their own shoulders to the wheel. Want of organisation, want of public spirit, want of mutual confidence, these are the causes which make the task of how "not to do it" so easy, and effectually prevent those who are willing and able to assist their brethren from making any movement.